AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND ENTREPRENEURIAL DEVELOPMENT

ACCESSING HEALTHCARE SERVICES AMONG THE DEAF COMMUNITY IN THE SEKYERE SOUTH DISTRICT, GHANA

HENRY BRENYA AFOAKWAH

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BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Henry Brenya Afoakwah

Signature…… Date……

Supervisors' Declaration

We hereby declare that the preparation and presentation of this dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development.

Dr. Denis Dekugmen Yar (Principal Supervisor)

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Signature…… Date……

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DEDICATION

I dedicate this work to my dearest wife, Priscilla, and lovely sons, Sam and Ben, for their inspiration, support, and encouragement throughout my study.

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LIST OF ACRONYMS

AAMUSTED	Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development
CHFRPE	Committee on Human Research, Publications, and Ethics
GSL	Ghanaian Sign Language
KNUST	Kwame Nkrumah University of Science and Technology
LMICs	Low- and Middle-Income Countries
NAD	National Association of the Deaf
NCDs	Non-communicable Diseases
PI	Principal Investigator
SDA	Seventh-day Adventist
SDGs	Sustainable Development Goals
UHC	Universal Health Coverage
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
VRI	Video Relay Interpreting
WFD	World Federation of the Deaf
WHO	World Health Organization

ABSTRACT

Deaf individuals face challenges accessing healthcare due to communication barriers, a lack of interpreters, and systemic issues, leading to disparities in care quality and adverse health outcomes. The study explored the experiences of deaf individuals in accessing healthcare services in the Sekyere South District of Ghana. A cross-sectional study involving 167 deaf individuals and 20 healthcare providers was conducted using multi-stage sampling. Data were collected via questionnaires, face-to-face interactions, and field observations, focusing on demographics, healthcare access, and communication barriers. Data was analyzed with SPSS version 22 using descriptive and inferential statistics. Ethical approval and informed consent were obtained before the data collection. Most (70.1%) of the deaf participants were from the Ashanti School for the Deaf, Jamasi, 88.0% used sign language, and 70.7% accessed healthcare from public hospitals. Of the healthcare participants, 45.0% were nurses aged 18–35, and 50.0% had diplomas. About half (49.7%) of healthcare providers lacked sign language skills, leading to 34.1% of deaf participants being denied healthcare services. Due to communication barriers, 44.3% of deaf participants avoided accessing healthcare and 48.5% experienced misdiagnosis. During their last visit to a health facility, 13.8% had interpreters, 42.5% experienced discrimination, and 41.3% received incorrect treatment. Factors such as mode of communication, age, and institution significantly influence healthcare access and experiences. Sign language users were six times more likely to be denied care [AOR=5.58 (1.04–29.96), p=0.045], and younger participants (13–17 years) were five times more likely to experience discrimination [AOR=4.9 (1.50–16.01), p=0.009].

Despite these challenges, 60.0% of healthcare providers believed the facilities prioritized the needs of deaf patients. Barriers to access healthcare services among the deaf community were primarily due to the lack of sign language proficiency among providers and the absence of interpreters. These barriers result in misdiagnoses, healthcare denial, and high levels of dissatisfaction. Despite some efforts by providers, the healthcare system remains unprepared primarily to meet the unique needs of the deaf community. Health facilities should integrate visual and digital aids to support communication.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Access to healthcare services is a fundamental human right and a critical determinant of health outcomes (Hulme, 2022; McGibbon, 2021). However, for individuals with disabilities, particularly the deaf community, navigating healthcare systems often presents significant challenges (Reiher, 2022). Deaf individuals frequently experience communication barriers, limited accessibility to health information, and inadequate accommodations within healthcare settings (McKee et al., 2022). These challenges not only impede their ability to seek timely and appropriate medical care but also contribute to poorer health outcomes compared to the general population (Schwarz et al., 2022). Globally, deaf individuals face significant barriers in accessing healthcare, though precise statistics are limited. According to the World Health Organization (WHO, 2021), over 5% of the world's population, around 430 million people, experience disabling hearing loss and require rehabilitation (Organization, 2021). These challenges highlight the urgent need for inclusive healthcare policies and improved accessibility for the deaf community.

Globally, the healthcare needs of deaf individuals have received increasing attention, particularly regarding communication barriers that hinder effective patient-provider interactions (Seymour, 2024). Studies have highlighted that deaf patients often struggle to convey their symptoms, understand medical advice, and access preventive healthcare

services due to the absence of qualified sign language interpreters, reliance on written communication, and limited awareness among healthcare professionals about their specific needs (Hall & Ballard, 2024) (Rogers et al., 2025) (Yabe, 2022). These barriers contribute to misdiagnoses, medication errors, and a lack of adherence to treatment regimens, ultimately exacerbating health disparities (Jean-Pierre, 2022).

In Ghana, the rights of persons with disabilities, including the deaf community, are recognized through legislative frameworks such as the Persons with Disability Act, 2006 (Act 715) and the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), which Ghana ratified in 2012 (Mprah & Duorinaah, 2022). These legal instruments advocate for inclusive healthcare services and equal access to medical care for all individuals, regardless of their disability status. Despite these efforts, the practical implementation of disability-friendly healthcare services remains inadequate, with reports of systemic barriers limiting healthcare access for deaf individuals in the country (Amoako & Yankyera, 2022).

The Ashanti region, one of the largest and second most populated regions in Ghana, houses a significant number of deaf individuals who rely on both public and private healthcare facilities for medical care (Osei-Kuffour, 2023). However, anecdotal evidence and preliminary reports suggest that many healthcare facilities in the region lack the necessary accommodations to serve the deaf population effectively (Owusu-Bobbie jr, 2023). This includes the absence of sign language interpreters, limited awareness among

healthcare providers regarding the needs of deaf patients, and insufficient policies to foster inclusive healthcare services (Mprah et al., 2023).

The Sekyere South District is largely rural, with residents relying on local health facilities for medical care. Although there have been efforts to improve primary healthcare, access remains a challenge for certain vulnerable groups. Among these is the deaf community, which continues to face significant difficulties when seeking healthcare services. This study, therefore, seeks to explore and investigate the challenges faced by deaf individuals in accessing healthcare services in the Sekyere South District of Ghana.

1.2 Problem Statement

Despite global and national efforts to promote inclusive healthcare, deaf individuals in Ghana continue to face significant challenges in accessing medical services (Mprah et al., 2024). Communication barriers remain the most pressing issue, as most healthcare providers are not trained in sign language, and sign language interpreters are rarely available in health facilities (Adade et al., 2023a). This creates a gap in effective communication, often leading to misdiagnoses, inadequate treatment, and poor health outcomes among deaf patients (Oppong et al., 2024).

Approximately 2.6% of the Ashanti region's population, around 124,501 people, have some form of disability, highlighting potential healthcare access challenges (Osei-Kuffour, 2023). While specific data on deaf individuals is limited, this figure underscores

the need for inclusive healthcare policies to address communication barriers and ensure equitable access to medical services (Akotey, 2024).

In the Sekyere South District, where a relatively large number of deaf people live, there is limited empirical data on the specific challenges they encounter within the healthcare system (Osei-Kuffour, 2023). Deaf individuals in the district encounter barriers such as limited communication with health professionals, the absence of trained sign language interpreters, low health literacy, and social stigma. These challenges often result in poor healthcare experiences, including misdiagnoses, delays in treatment, and overall lower quality of care.

Existing healthcare policies and guidelines in Ghana do not sufficiently address the unique needs of the deaf community, leading to systemic exclusion and disparities in healthcare access (Opoku et al., 2024). Without a clear understanding of these challenges, efforts to improve healthcare accessibility for the deaf population remain inadequate.

1.3 Study Objectives

The main aim of this study was to investigate the experiences of deaf individuals in accessing healthcare services within the Sekyere South District of Ghana.

1. 3.1 Specific Objectives

Specifically, this study sought to:

1. Assess communication barriers faced by the deaf community in accessing healthcare services in the Sekyere South District.
2. Examine the experiences of the deaf community in accessing healthcare services in the district.
3. Assess existing practices of health facilities in providing services for the deaf community.

1.4 Research Questions

The following research questions guided this study:

1. What communication barriers do deaf individuals face when accessing healthcare services in the Sekyere South District?
2. What are the experiences of deaf individuals seeking healthcare services in the Sekyere South District?
3. How do healthcare facilities currently accommodate and provide services for deaf individuals?

1.5 Justification

Access to quality healthcare is a fundamental human right and a key determinant of public health and well-being (WHO, 2024). However, persons with disabilities, particularly those who are deaf, often face significant barriers in accessing healthcare services, including communication challenges, a lack of awareness among healthcare providers, and an inadequate healthcare infrastructure that accommodates their needs (Baratedi et al., 2022). In Ghana, the deaf community remains underserved in healthcare systems due to limited sign language interpretation services, negative provider attitudes,

and structural constraints that hinder effective communication and service delivery (Mprah et al., 2025).

The Ashanti region of Ghana has an estimated 24,000 deaf individuals (about 22% of the total deaf population in Ghana), yet only a few healthcare facilities have sign language interpreters (Adjei et al., 2023). A 2022 survey found that over 70% of deaf patients in the region experience communication barriers when seeking medical care (Addo et al., 2023). Additionally, a health accessibility report indicated that only 15% of health workers in the region have received any form of training on deaf-friendly communication (Mprah et al., 2023).

Despite global and national efforts to promote inclusive healthcare, there is limited research on the specific challenges deaf individuals face in accessing healthcare services in the Sekyere South District. Understanding these barriers is crucial for designing policies and interventions that ensure equitable healthcare access for all (Addo et al., 2023). This study, therefore, provides empirical evidence on the experiences of deaf individuals in healthcare settings, highlights existing gaps in healthcare service delivery, and proposes strategies for improving inclusivity in Ghana's healthcare system.

1.6 Significance of the Study

This study would contribute to the growing body of research on disability-inclusive healthcare by providing insights into the challenges and experiences of deaf individuals in accessing medical services. The findings would be valuable to policymakers,

healthcare providers, and disability advocacy organizations in designing inclusive healthcare policies and training programs for healthcare professionals.

Additionally, the study would inform interventions to enhance communication between healthcare providers and deaf patients, ultimately improving patient satisfaction and health outcomes. By shedding light on the barriers to healthcare access among the deaf community, this research would also support Ghana's efforts to achieve Universal Health Coverage (UHC) and Sustainable Development Goal 3, which focuses on ensuring healthy lives and promoting well-being for all at all ages (Amu et al., 2023).

1.7 Scope of the Study

This study focused on the accessibility of healthcare services for deaf individuals in the Sekyere South District of Ghana. The research examined the experiences of deaf individuals in interacting with healthcare providers, the availability of sign language interpretation services, and the structural and systemic barriers to healthcare access.

Due to resource constraints and the need for in-depth qualitative insights, the study concentrated on selected healthcare facilities within urban and peri-urban areas of the Sekyere South District. This district was chosen because it has a significant population of deaf individuals and serves as a key healthcare hub. It is an appropriate setting for assessing the accessibility and inclusivity of healthcare services for the deaf community.

1.8 Thesis Organization

The study is divided into six main chapters. The first chapter addresses the background of the study, the problem statement, objectives, research questions, justification, significance of the study, scope and organization. The second chapter thoroughly examined relevant literature related to this research topic. Chapter three focuses on presenting the study area and the methodology employed to conduct the research. Moving on to chapter four, the study data is presented. Chapter five discussed the findings of the study. Lastly, in chapter six, the summary of the results is presented, conclusions based on the main findings are drawn, and recommendations are offered based on the study's outcomes.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter comprehensively reviews existing literature related to the experiences of deaf individuals in accessing healthcare services globally and in Ghana. The following areas are covered in this review: global healthcare, healthcare in Africa, access to healthcare, communication barriers faced by the deaf community in accessing healthcare services, experiences of the deaf community in accessing healthcare services, and lastly, existing practices of health facilities in providing services for the deaf community.

2.1 Global Healthcare

The global demographic shift towards an ageing population has significant implications for healthcare systems worldwide (Jane Osareme et al., 2024). The proportion of the global population aged 15 years and older increased from 67% in 1990 to 74% in 2019 and is projected to reach 86% by 2100 (O'Sullivan, 2023). This transition necessitates a shift in healthcare priorities, as the medical needs of working-age adults and older populations differ from those of children and adolescents (Billett et al., 2021). Non-communicable diseases (NCDs), which predominantly affect adults, account for 98% of deaths among those aged 15 and older (Armocida et al., 2022). However, health systems in low- and middle-income countries (LMICs) have historically focused more on infectious diseases such as HIV/AIDS, malaria, and tuberculosis, while investment in NCD care remains insufficient (Waage et al., 2022). This disparity is evident in the

allocation of international health aid, where less than 2% of the US$40 billion in annual development assistance for health is directed towards NCDs (Chopra et al., 2023). Consequently, adequate coverage of NCD interventions remains low compared to maternal, child, and infectious disease care, which may contribute to higher rates of premature mortality among working-age and older populations (Ferede Gebremedhin et al., 2022).

The globalization of public health has further influenced healthcare access and outcomes (Khorram-Manesh et al., 2024). Economic shifts have exacerbated inequalities in healthcare access, particularly in countries undergoing economic transitions. In some regions, centralized health systems that previously guaranteed universal healthcare have been dismantled, leaving vulnerable populations without basic medical services (Preker et al., 2021). The adverse effects of globalization on health are most pronounced in countries lacking robust regulatory institutions, competitive domestic markets, and comprehensive social safety nets. Furthermore, healthcare disparities between rich and poor populations persist, with wealthier individuals utilizing healthcare services more frequently than those in poverty. The intersection of economic instability and inadequate healthcare infrastructure underscores the need for integrated healthcare delivery systems that address both communicable and non-communicable diseases while ensuring equitable access (Sankoh et al., 2024).

A more systematic and evidence-based approach is necessary to improve global healthcare delivery. Many initiatives addressing healthcare challenges in LMICs remain

fragmented, focusing on isolated diseases rather than adopting a holistic, system-wide perspective (Mphande et al., 2023). The care delivery value chain model offers a structured framework to enhance healthcare efficiency, emphasizing integrated service delivery, shared infrastructure, and economies of scale. Aligning healthcare services with local social and economic contexts, such as improving water and sanitation or addressing malnutrition, can lead to better health outcomes (Nelson et al., 2021). Additionally, healthcare investments should enhance service delivery and contribute to broader economic development, especially for impoverished populations facing high disease burdens (Masis et al., 2021). Strengthening research and training in healthcare delivery will be essential in building resilient health systems capable of addressing the evolving global healthcare landscape (Forsgren et al., 2022).

2.1.1 Healthcare in Africa

Healthcare in Africa has historically been characterized by significant disparities in access, quality, and affordability (Mhazo et al., 2023). The colonial legacy left many African nations with underdeveloped health systems, and post-independence periods were marked by inadequate investments in healthcare infrastructure (Odeh & Otitolaiye, 2022). Over the years, economic constraints, political instability, and systemic inefficiencies have further hindered the delivery of essential health services. Many African countries have struggled with low healthcare provider density, insufficient medical resources, and limited rural healthcare coverage. Additionally, widespread poverty and high out-of-pocket healthcare costs have made medical services inaccessible for many individuals, particularly in marginalized communities (Brimmo et al., 2022).

These challenges have contributed to lower life expectancy, higher maternal and infant mortality rates, and the prevalence of preventable diseases across the continent.

Recognizing these challenges, global and regional efforts have been made to strengthen African healthcare systems. The World Health Organization (WHO) and other international bodies have advocated for universal health coverage (UHC) to ensure that all individuals receive the care they need without suffering financial hardship (WHO, 2022a). The Sustainable Development Goals (SDGS), particularly SDG 3.8, emphasize access to quality healthcare services and financial risk protection (Kipo-Sunyehzi, 2024). Many African governments have introduced health financing reforms, such as national health insurance schemes and reduced user fees, to improve healthcare accessibility. However, the implementation of UHC remains uneven due to financial limitations, infrastructural deficits, and inefficiencies in governance (Debie et al., 2022). Studies have shown that healthcare access continues to be influenced by socioeconomic status, race, insurance coverage, and geographic location, with rural populations and economically disadvantaged groups facing the most significant barriers (Cortez et al., 2021).

Despite ongoing challenges, there have been notable improvements in healthcare access and delivery in recent years. Several African nations have expanded immunization programs, improved maternal and child healthcare services, and increased investment in healthcare infrastructure (Sinumvayo et al., 2024). Advances in technology, including telemedicine and mobile health initiatives, have also helped bridge gaps in access, particularly in remote areas (Kale et al., 2023). However, structural barriers such as

inadequate healthcare workforce distribution, poor transportation infrastructure, and disparities in service quality persist. Achieving equitable healthcare access in Africa will require sustained policy commitment, increased health system investment, and innovative solutions to address disparities. The path to universal healthcare in Africa is complex, but continued efforts to strengthen health systems and eliminate access barriers can improve health outcomes for all populations.

2.1.2 Access to Healthcare

Access to healthcare is a fundamental human right, yet individuals with disabilities often face significant barriers in obtaining quality medical services (Matin et al., 2021). In Africa, where healthcare accessibility is already a challenge due to economic, geographic, and infrastructural limitations, persons with disabilities experience even greater difficulties (Chowdhury & Ravi, 2022). Many healthcare facilities are not adequately equipped to accommodate their needs, leading to disparities in health outcomes (Al-Worafi, 2023). Historical underinvestment in healthcare infrastructure has further marginalized this group, particularly in rural and underserved communities, where assistive technologies, rehabilitation services, and specialized care are often unavailable (Williamson, 2024).

Efforts to improve healthcare access for individuals with disabilities have gained attention through government initiatives, international support, and community-based programs (WHO, 2022b). Mobile health clinics, telemedicine, and disability-inclusive policies have helped address these gaps (George et al., 2024). However, persistent

challenges remain, including negative provider attitudes, inadequate training on disability-related healthcare, and limited funding for disability-focused medical interventions (Phillips et al., 2021). Furthermore, the brain drain of healthcare professionals and inefficient healthcare policies continue to hinder the provision of specialized services necessary for persons with disabilities, affecting both communicable and non-communicable disease management (Oduola, 2023).

Recent global health crises, such as the COVID-19 pandemic, have underscored the urgency of strengthening healthcare systems to ensure inclusivity (Mallah et al., 2021). The pandemic highlighted the vulnerabilities of healthcare infrastructure, with persons with disabilities facing disproportionate risks due to mobility restrictions, inaccessible health information, and disparities in vaccine distribution (Goyal et al., 2023). Addressing these challenges requires a multi-faceted approach, including sustained investment in disability-friendly healthcare facilities, enhanced training for medical professionals on disability care, and implementing inclusive health policies (Jevtić et al., 2025). A healthcare system that prioritizes accessibility for all, including individuals with disabilities, promotes equity and contributes to overall socio-economic development by enabling all individuals to participate fully in society (Swenor, 2021).

2.1.3 Disability and Healthcare

The attitudes of healthcare providers toward individuals with physical disabilities play a crucial role in determining the quality of care these patients receive. Negative perceptions or biases can create barriers to effective communication, accurate diagnosis, and

appropriate treatment (Lagu et al., 2022). Research has examined these attitudes among healthcare students and professionals, recognizing the potential impact on patient-provider interactions (Iezzoni et al., 2021).

Some studies indicate that healthcare providers may experience discomfort, fear, or anxiety when treating patients with physical disabilities (Matin et al., 2021). These concerns may stem from a lack of experience, uncertainty in handling disability-related medical complexities, or a fear of causing harm. Since exposure has been linked to improved attitudes, educational interventions can be valuable in addressing these concerns (Dolezal, 2022). Incorporating disability-related training in medical and nursing curricula, increasing direct interactions with individuals with disabilities during clinical rotations, and promoting inclusive healthcare policies can help healthcare providers gain confidence and competence in treating this patient population (Lebrasseur et al., 2021). By enhancing education and training, healthcare systems can work toward reducing biases, alleviating provider anxiety, and ultimately improving the quality of care for patients with physical disabilities (Matin et al., 2021).

2.2 Communication Barriers Faced by the Deaf Community in Accessing Healthcare Services

2.2.1 Language Barriers and Miscommunication

Access to healthcare is a fundamental right, yet deaf individuals frequently encounter language barriers that hinder effective communication with healthcare providers (Verulava, 2021). A significant obstacle is the scarcity of professional interpreters and

healthcare workers proficient in sign language, leaving deaf patients without a reliable means of conveying their health concerns (De Meulder & Haualand, 2021). This communication gap often forces patients to rely on alternative methods, such as written notes or lip-reading, which may not be effective due to varying literacy levels within the deaf population (Santana et al., 2025). The inability to access proper communication support places deaf individuals at a disadvantage when seeking medical attention.

Healthcare professionals' lack of training in sign language further exacerbates communication challenges. Without adequate training, many providers struggle to interact with deaf patients, leading to confusion and frustration on both sides (Jacob et al., 2022). Written communication, while sometimes used as an alternative, is not always a viable solution since many deaf individuals may not have strong proficiency in the written language of their country (Smith, 2021). This limitation increases the likelihood of misunderstandings, as important medical information may not be fully comprehended. The absence of direct communication methods tailored to deaf patients reduces their ability to actively engage in discussions about their health, impacting their overall experience within healthcare systems.

The consequences of miscommunication in healthcare settings can be severe, leading to misdiagnoses, improper treatments, and poor health outcomes (Albert et al., 2025). When healthcare providers fail to communicate effectively with deaf patients, critical medical information may be lost or misinterpreted, resulting in inappropriate medical decisions. Moreover, repeated negative experiences may discourage deaf individuals from seeking

medical care, increasing the risk of preventable health complications. Addressing these communication barriers requires systemic changes, such as integrating sign language training for healthcare professionals and increasing the availability of qualified interpreters to ensure equitable healthcare access for the deaf community.

2.2.2 Limited Availability of Sign Language Interpreters

The shortage of sign language interpreters in healthcare settings presents a significant barrier to equitable medical care for deaf individuals. In many countries, the demand for interpreters far exceeds the supply, making it difficult for deaf patients to access timely and effective communication during medical consultations (Grote et al., 2021). This shortage is particularly problematic in rural and under-resourced areas, where interpreters are often unavailable, forcing deaf individuals to rely on family members or untrained staff for interpretation. As a result, critical medical information may be misinterpreted, leading to confusion, misdiagnosis, and inadequate treatment.

Even when sign language interpreters are available, financial and logistical challenges further limit their accessibility. Many healthcare institutions do not allocate sufficient funding for interpreter services, leaving deaf patients to bear the cost themselves (Kwan et al., 2023). Additionally, scheduling conflicts often arise, as interpreters may not be readily available during emergency visits or outside regular working hours. This situation forces many deaf individuals to navigate healthcare encounters without professional assistance, increasing their reliance on ineffective communication methods such as lip-reading or written notes, which may not fully convey medical nuances.

The absence of strong institutional policies supporting sign language interpretation services exacerbates this challenge. Many healthcare facilities lack formal guidelines to ensure that interpreters are consistently integrated into patient care, resulting in an ad-hoc approach to communication support (Kletečka-Pulker et al., 2021)Without a standardized system, interpreter availability remains inconsistent, leaving deaf patients limited options for effective healthcare interactions. To address this issue, healthcare systems must prioritize investments in interpreter training programs, establish clear policies for interpreter availability, and explore alternative solutions such as video remote interpreting to bridge the communication gap.

2.2.3 Stigma and Attitudinal Barriers

Attitudinal barriers in healthcare significantly impact on the quality of care received by deaf individuals. Many healthcare professionals have a limited understanding of deaf culture and communication, often resulting in frustration and neglect during medical interactions (Greene & Scott, 2021). A lack of awareness about the unique healthcare needs of the deaf community leads to the assumption that written communication or lip-reading is sufficient, disregarding the importance of professional interpreters or direct sign language communication. This knowledge gap creates an environment where deaf patients feel excluded and misunderstood, reducing their confidence in healthcare providers.

Discriminatory attitudes and misconceptions about deafness further exacerbate healthcare disparities. Some providers may perceive deaf individuals as less capable of

understanding medical information, leading to a paternalistic approach in decision-making (Geyer et al., 2021). This bias can contribute to delays in diagnosis and treatment, as healthcare workers may not take the concerns of deaf patients as seriously as those of hearing individuals. Additionally, negative stereotypes and assumptions about deaf people's intelligence or ability to manage their health independently can create an unwelcoming atmosphere, discouraging them from actively engaging in their healthcare.

The cumulative effect of stigma and attitudinal barriers ultimately reduces access to preventive care and contributes to poorer health outcomes for the deaf population. Feeling unwelcome or misunderstood in medical settings discourages many deaf individuals from seeking routine check-ups or early intervention for health issues (Jamal, 2024). This avoidance behaviour increases the risk of undiagnosed or unmanaged conditions, further widening health disparities. Addressing these challenges requires targeted training programs for healthcare professionals to foster cultural competence, eliminate biases, and improve communication strategies tailored to the needs of deaf patients.

2.2.4 Technology and Alternative Solutions

Advancements in technology have provided innovative solutions to overcome communication barriers in healthcare, particularly for the deaf community (Jacob et al., 2021). In developed countries, telehealth services incorporating Video Relay Interpreting (VRI) have been implemented to facilitate effective communication between deaf patients and healthcare providers (Rivas Velarde et al., 2022). Through VRI, sign

language interpreters connect remotely via video calls, ensuring that medical consultations are more accessible and accurate. Mobile health applications equipped with sign language interpretation features have also emerged as potential tools to enhance healthcare accessibility for deaf individuals. These digital solutions help bridge communication gaps by enabling real-time interpretation and fostering more inclusive healthcare interactions.

Despite the potential of these technologies, accessibility and affordability remain significant challenges, particularly in low-resource settings such as Ghana (Adade et al., 2023b). Limited internet access, high costs of smart devices, and a lack of investment in assistive technology infrastructure hinder the widespread adoption of these solutions (Tengepare, 2022). Furthermore, the availability of qualified sign language interpreters remains scarce, making it challenging to integrate technology-driven interpretation services into mainstream healthcare fully. As a result, deaf individuals in Ghana continue to rely on traditional, often ineffective communication methods such as written notes and gestures, which may lead to misunderstandings and inadequate medical care (Opoku et al., 2024).

To improve healthcare accessibility for the deaf community, exploring alternative and cost-effective solutions tailored to local contexts is essential. Expanding community-based sign language training for healthcare providers, incorporating basic Ghanaian Sign Language (GSL) interpretation features into government-supported telehealth services, and increasing investment in assistive technology are critical steps toward addressing

these challenges (Mac Hadjah, 2024). Additionally, public-private partnerships can help make mobile health applications and VRI services more affordable and accessible. By leveraging technology and alternative solutions, Ghana can work toward a more inclusive healthcare system that ensures effective communication and equitable access to medical services for the deaf community.

2.2.5 Language Barriers and the Role of Ghanaian Sign Language (GSL)

Language barriers pose a major challenge for deaf individuals in Ghana, particularly in accessing essential healthcare services (Appiah et al., 2018b). Ghanaian Sign Language (GSL) serves as the primary means of communication for the deaf community, yet most healthcare providers lack the necessary training to communicate effectively in GSL (Mprah et al., 2024). As a result, deaf patients often struggle to express their symptoms, understand diagnoses, and follow medical instructions. Instead, communication is frequently attempted through written notes, gestures, or reliance on family members, which can lead to misinterpretations and inadequate care (Sheppard, 2014). These challenges contribute to delays in seeking treatment, misdiagnosis, and overall poorer health outcomes for deaf individuals.

Efforts have been made to address this communication gap by advocating for inclusive healthcare policies and integrating sign language interpretation services in medical facilities (De Meulder et al., 2021). Some hospitals and clinics have introduced basic training programs to help healthcare workers acquire fundamental GSL skills (Moroe & Masuku, 2024). Additionally, professional sign language interpreters in healthcare

settings have been proposed as a solution to improve communication between deaf patients and medical professionals. However, the availability of qualified interpreters remains limited, and many healthcare facilities lack the resources to employ them (Asonye & Edward, 2022). This shortage further widens the healthcare accessibility gap for the deaf community, reinforcing the need for systemic improvements in healthcare communication.

More comprehensive interventions are necessary to ensure equitable healthcare access for deaf individuals. Integrating GSL training into medical and nursing curricula can equip future healthcare providers with the skills to communicate effectively with deaf patients (McCartney et al., 2023). Furthermore, expanding telehealth services with sign language accessibility and increasing public awareness of the importance of linguistic inclusivity in healthcare can help bridge the gap (Tannenbaum-Baruchi, 2024). Addressing language barriers through policy changes, investment in interpreter services, and widespread GSL education will not only improve healthcare experiences for the deaf community but also promote inclusivity and equal access to essential medical services in Ghana (Tengepare, 2022).

2.2.6 Shortage of Sign Language Interpreters

The availability of sign language interpreters in Ghana is limited, and hospitals rarely have professional interpreters on staff (Adade et al., 2023a). Deaf patients often have to rely on family members or friends for interpretation, which can compromise patient confidentiality and lead to misinterpretation of medical information. The lack of

institutional support for training and deploying interpreters further exacerbates this issue (James, Coady, et al., 2022).

2.2.7 Cultural and Attitudinal Challenges

Cultural beliefs and stigma around deafness contribute to barriers in accessing healthcare in Ghana. Some healthcare providers perceive deafness as a disability that requires special accommodations, which they are not equipped to provide (Opoku et al., 2024). This can result in delays in diagnosis, miscommunication about treatment plans, and overall lower quality of care for deaf individuals (Baratedi et al., 2022).

2.2.8 Lack of Policy and Institutional Support

There is a general lack of policies and frameworks that ensure accessible healthcare services for the deaf community in Ghana. Unlike in some developed countries where healthcare policies mandate sign language interpretation services, Ghana has no widespread enforcement of such measures (Seidu et al., 2021). This lack of institutional support creates further obstacles for deaf individuals seeking medical care.

Several recommendations have been proposed in Ghana to address these barriers. Training Healthcare Providers in GSL: Introducing basic GSL training for healthcare professionals can significantly improve communication and patient outcomes. Deploying More Sign Language Interpreters: Expanding interpreter services and ensuring availability in major hospitals and clinics would bridge the communication gap. Public Awareness Campaigns: Increasing awareness about the rights and needs of the deaf

community can help reduce stigma and promote inclusive healthcare practices. Leveraging Technology: Implementing telehealth services and mobile applications with sign language interpretation features could enhance accessibility to healthcare (Opoku et al., 2024).

2.3 Experiences of the Deaf Community in Accessing Healthcare Services

The experiences of the deaf community in accessing healthcare services vary significantly depending on institutional policies, cultural attitudes towards disability, and healthcare provider awareness (Baratedi et al., 2022). Numerous studies have highlighted systemic barriers that hinder equitable healthcare access for deaf individuals worldwide and in Ghana (Adjei et al., 2023). This review examines key aspects such as patient-provider interaction, access to health information, and healthcare-seeking behaviour.

2.3.1 Quality of Patient-Provider Interaction

Effective communication between patients and healthcare providers is fundamental to quality healthcare delivery. However, deaf individuals frequently encounter communication barriers that lead to frustration, anxiety, and suboptimal care. Laws (2024) found that deaf patients in South Africa experienced significant distress due to miscommunication, often resulting in incorrect diagnoses and treatment plans. In the United States, Rotoli et al. (2022) identified that the lack of American Sign Language (ASL) – proficient medical staff contributed to delays in care and misunderstandings about treatment options.

In Ghana, healthcare facilities largely lack sign language interpreters, making it difficult for deaf patients to communicate their symptoms and concerns effectively. (Adjei et al., 2023) noted that many deaf individuals in Ghana feel excluded from their healthcare decisions due to providers' inability to communicate in Ghanaian Sign Language (GSL). This exclusion can result in misdiagnoses and inappropriate treatments, further exacerbating health disparities for the deaf community.

2.3.2 Access to Health Information

Health information accessibility is a critical component of public health. Due to the predominant use of auditory communication channels in health campaigns, deaf individuals often face challenges in receiving accurate and timely health information. (Chandanabhumma et al., 2024) emphasized that health education materials and public health messaging are frequently not adapted for deaf individuals, leaving them vulnerable to misinformation and reduced health literacy.

In Ghana, the situation is similar, as highlighted in the Sekyere South District, where most health education initiatives are not sign language-inclusive, limiting deaf individuals' awareness of preventive care measures and treatment options (Owusu et al., 2023). This gap becomes especially problematic during public health crises, such as the COVID-19 pandemic, where access to real-time, accurate health information is essential.

2.3.3 Healthcare-Seeking Behaviour

The negative experiences of deaf individuals in healthcare settings influence their willingness to seek medical assistance. Studies indicate that previous encounters with communication barriers, neglect, or mistreatment can discourage deaf individuals from accessing healthcare services until conditions become severe (Admire & Ramirez, 2021). (James, Argenyi, et al., 2022) reported that deaf individuals in the United States often delay seeking medical attention due to past negative experiences with healthcare providers. (Hulme, 2022). Similarly, it was found that deaf patients in the United Kingdom feared misdiagnosis and discrimination, leading to self-imposed healthcare avoidance.

In Ghana, (Tengepare, 2022) found that many deaf individuals prefer self-medication or seek healthcare only when symptoms become unbearable. This delay often results in complications that could have been prevented with timely medical intervention. The lack of deaf-friendly healthcare services in Ghana contributes to poorer health outcomes for this population.

Globally and in Ghana, deaf individuals face significant barriers in accessing quality healthcare services (Baratedi et al., 2022). Challenges related to patient-provider communication, health information accessibility, and healthcare-seeking behaviour must be addressed to ensure equitable healthcare delivery. Policies promoting disability awareness training for healthcare workers, including sign language interpreters in hospitals, and adapting health education materials for the deaf community are crucial in

bridging the accessibility gap. Addressing these issues will enhance the healthcare experiences of deaf individuals and improve overall health outcomes.

2.4 The Evaluation of Existing Practices in Providing Services for the Deaf Community

The evaluation of existing practices in providing services for the deaf community encompasses several critical areas, including institutional policies, accessibility initiatives, technological advancements, and tailored recommendations for improvement (Cawthon & Garberoglio, 2021). Various strategies have been implemented globally to enhance service delivery for deaf individuals, yet challenges persist, particularly in regions like Ghana.

2.4.1 Institutional Policies and Accessibility Initiatives

Healthcare institutions worldwide have recognized the importance of implementing policies and initiatives to improve accessibility for deaf patients (Morisod et al., 2022). These measures often include training programs for medical staff to enhance communication skills and the provision of sign language interpreters. For instance, the National Association of the Deaf (NAD) emphasizes that healthcare providers must offer accommodations such as qualified interpreters, real-time captioning, and assistive listening devices to ensure effective communication with deaf and hard-of-hearing individuals (Jacob et al., 2022).

In Ghana, however, such initiatives are limited and inconsistent. A study assessing the experiences and perceptions of deaf individuals in the Wa Municipality revealed dissatisfaction with healthcare services due to communication difficulties, discrimination, and inadequate staff attitudes. The study concluded that deaf people are not satisfied with healthcare services in the Wa Municipality and recommended that health facility management implement policies to address these challenges (Tengepare, 2022).

2.4.2 Technology and Assistive Devices

Technological advancements have been leveraged globally to bridge communication gaps between healthcare providers and deaf patients (McKee et al., 2022). Telemedicine has been highlighted as a valuable tool in improving access to care for deaf individuals, particularly in mental health services, where the availability of sign language interpreters or language-fluent care providers is sometimes minimal, especially in rural areas.

In Ghana, the adoption of such innovations faces challenges due to limited technological infrastructure and funding constraints (Oduro, 2020). An exploratory study on mental health services for the deaf in Ghana highlighted that deaf individuals face unique barriers in accessing healthcare, including inadequate provision of sign language interpretation services and a lack of sign language proficiency among healthcare providers, which often leads to misdiagnoses.

2.5 Theory of Accessibility and Equity in Healthcare for the Deaf Community

The Theory of Accessibility and Equity in Healthcare for the Deaf Community builds upon foundational principles from the Social Model of Disability and the Health Equity Framework to explain the barriers and facilitators in healthcare access for the deaf community (Parsloe & Carroll, 2021). Harlan Lane, an American psychologist known for his work on Deaf culture and sign language, Lane was a prominent advocate for the Deaf community (Leigh et al., 2022). This theory was developed to highlight the systemic, interpersonal, and individual factors influencing healthcare utilization and advocate for structural changes that promote equitable health outcomes.

2.6 Chronological Development of the Theory

2.6.1 Foundational Principles and Theoretical Influences

The development of this theory draws from the Social Model of Disability, which emerged in the 1970s as a response to the medical model's focus on individual impairments (Barnes, 2019). This model reframes disability as a product of environmental and societal barriers rather than a personal deficit. Additionally, the Health Equity Framework, which gained prominence in the 1990s, emphasizes that health disparities arise from structural inequalities, social determinants of health, and systemic discrimination (Smalley et al., 2024). These two frameworks provide the foundation for understanding the healthcare challenges faced by the deaf community.

2.6.2 Emergence of Key Propositions

As the theory evolved, researchers and disability rights advocates identified core areas affecting healthcare access for deaf individuals. The key propositions of the theory include:

Structural Barriers and Systemic Discrimination:

Healthcare systems are primarily designed for hearing individuals, often disregarding the needs of the deaf community. The absence of sign language interpreters, inadequate training for healthcare professionals, and weak enforcement of disability rights laws contribute to systemic exclusion.

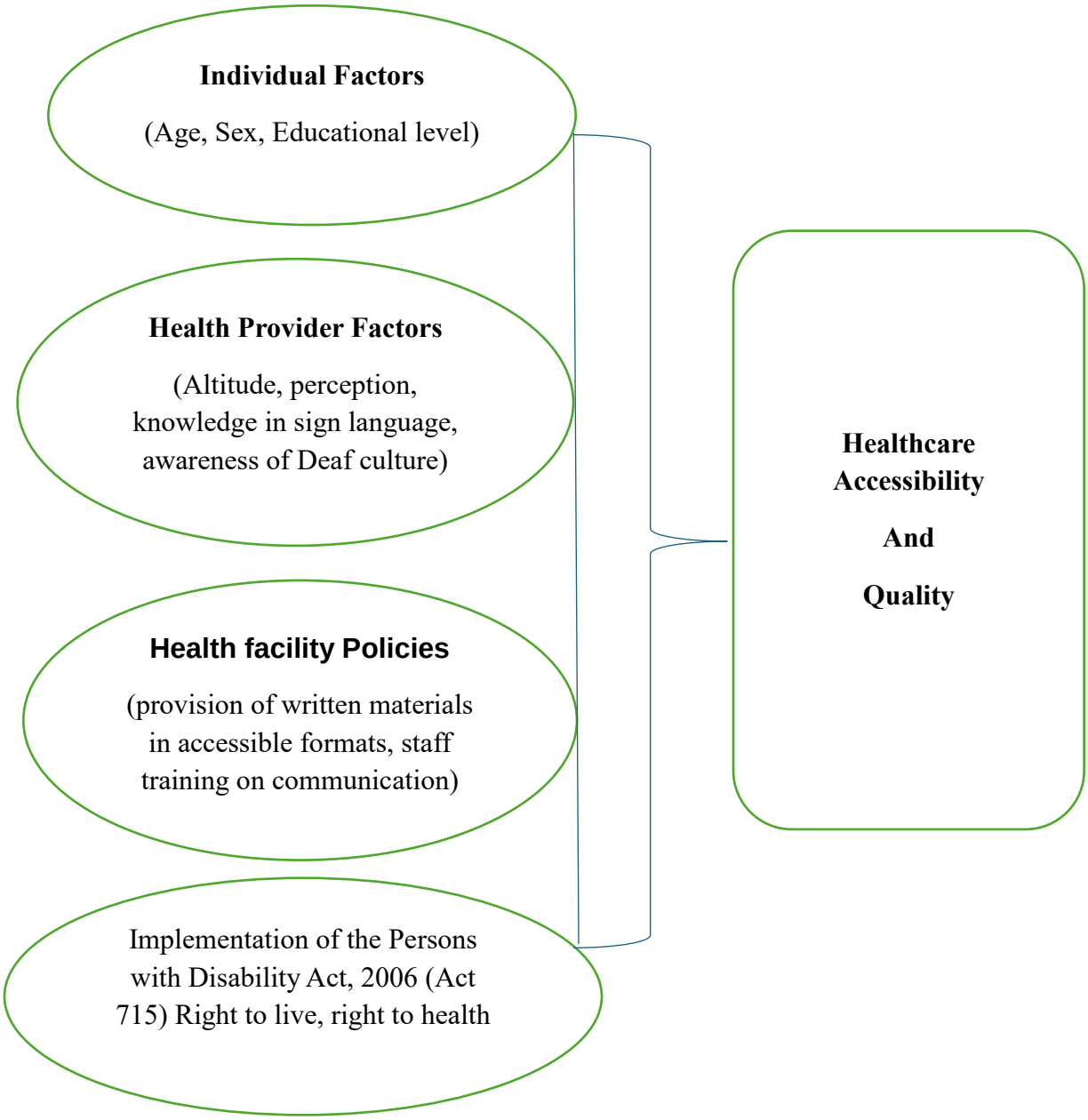
Intersectionality of marginalization:

Deaf individuals face compounded healthcare barriers due to intersecting factors such as socioeconomic status, gender, and geographic location. These overlapping factors create unique vulnerabilities that influence healthcare access and outcomes.

Communication Accessibility is a Critical Determinant:

Effective healthcare delivery requires accessible communication tools, such as sign language interpretation and visual aids. Without these resources, deaf individuals face difficulties in understanding diagnoses and treatment plans, leading to poorer health outcomes.

2.7 Conceptual Framework



2.7.1 Individual Factors

Individual Factors such as age, sex, and educational level directly affect how deaf individuals access and experience healthcare services. These personal characteristics shape how individuals interact with health systems and providers.

2.7.2 Health Provider Factors

Health Provider Factors—including providers' attitudes, perceptions, and knowledge of sign language and Deaf culture—play a crucial role in determining the accessibility and quality of care. Positive attitudes and understanding of Deaf culture enhance communication and trust, while a lack of knowledge can lead to miscommunication, misdiagnosis, and exclusion. Providers' cultural competence is vital to delivering equitable care.

2.7.3 Health Facility Policies

Health Facility Policies, such as the availability of written materials in accessible formats and regular staff training on communication strategies, create an environment that either facilitates or hinders access. Facilities with inclusive policies are more likely to accommodate deaf individuals effectively, improving both access and quality of care. In contrast, the absence of such policies can lead to systemic neglect of the communication needs of deaf patients.

2.7.4 The Implementation of the Persons with Disability Act, 2006 (Act 715)

The Implementation of the Persons with Disability Act, 2006 (Act 715), which ensures the right to health and the right to live for persons with disabilities, serves as a legal foundation that mandates inclusive practices. Its effective enforcement ensures that health services are designed to be accessible to all, including the deaf community. Without proper implementation, these rights remain theoretical, and health inequalities persist.

2.7.5 Health Accessibility and Quality

These independent variables influence the Dependent Variable: Health Accessibility and Quality. When individual factors are favorable, health providers are culturally competent, facility policies are inclusive, and national laws are enforced, deaf individuals are more likely to access both available and high-quality healthcare. Conversely, gaps in these areas can significantly reduce accessibility and diminish the quality of care received.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This thesis chapter focuses on the study area and the methodology employed. It discusses the following sections: Study Design, Study Area, Study Site, Study Population, Inclusion and Exclusion Criteria, Sample Size Estimation, Sampling Techniques, Data Collection Tools and Techniques, Sample Collection, Sample Processing, Data Management, Statistical Analysis, and Ethical Review and Clearance.

3.1 Design of the Study

This study employed a cross-sectional design to investigate the experiences of deaf individuals in accessing healthcare services within the Sekyere South District of Ghana.

3.2 Area of the Study

This study was conducted in the Sekyere South District. Sekyere South District Assembly (SSDA), located in the Ashanti Region of Ghana, is one of the 254 Metropolitan, Municipal, and District Assemblies in the country. Established in 2006, it operates under the Local Governance Act, 2016 (Act 936) and Legislative Instrument (L.I) 2034 (GSS, 2021). The Assembly is responsible for planning and implementing development initiatives, infrastructure projects, and social services. It also supports local communities and monitors the execution and impact of development plans. The district spans 584 square kilometers, about 2.4% of the Ashanti Region's total land area (GSS, 2021). It

shares boundaries with Ejura-Sekyedumase to the north, Mampong Municipal to the east, Sekyere East and Kwabre East to the south, and Afigya Kwabre to the west.

The district features moist semi-deciduous vegetation and fertile soils, ideal for cultivating both food and cash crops such as cocoa, plantain, cassava, and citrus. Its topography includes the Mampong Escarpment and is traversed by rivers like Offin, Oyon, and Abankro, which provide water for various communities. The equatorial climate has a double rainfall pattern, supporting agricultural activities but also posing risks of crop destruction during heavy rains. The 2017 projected population was 116,792, with a density of 195.3 persons/km² and an annual growth rate of 3.5% (GSS, 2021). The population is predominantly Ashanti (74.6%), with other ethnic groups including Kusasi, Kotokoli, and Busanga, primarily from northern Ghana. Settlement patterns are skewed towards urban areas, especially along major road corridors.

Sekyere South District was selected for this study due to its relatively high population of individuals with hearing impairments and the presence of the Ashanti School for the Deaf in Jamasi (GSS, 2021). This institution plays a significant role in supporting the deaf community. Additionally, the district has a range of healthcare facilities that serve both hearing and non-hearing individuals. These characteristics make it a suitable setting for assessing accessibility and inclusivity in healthcare delivery for people with hearing impairments.

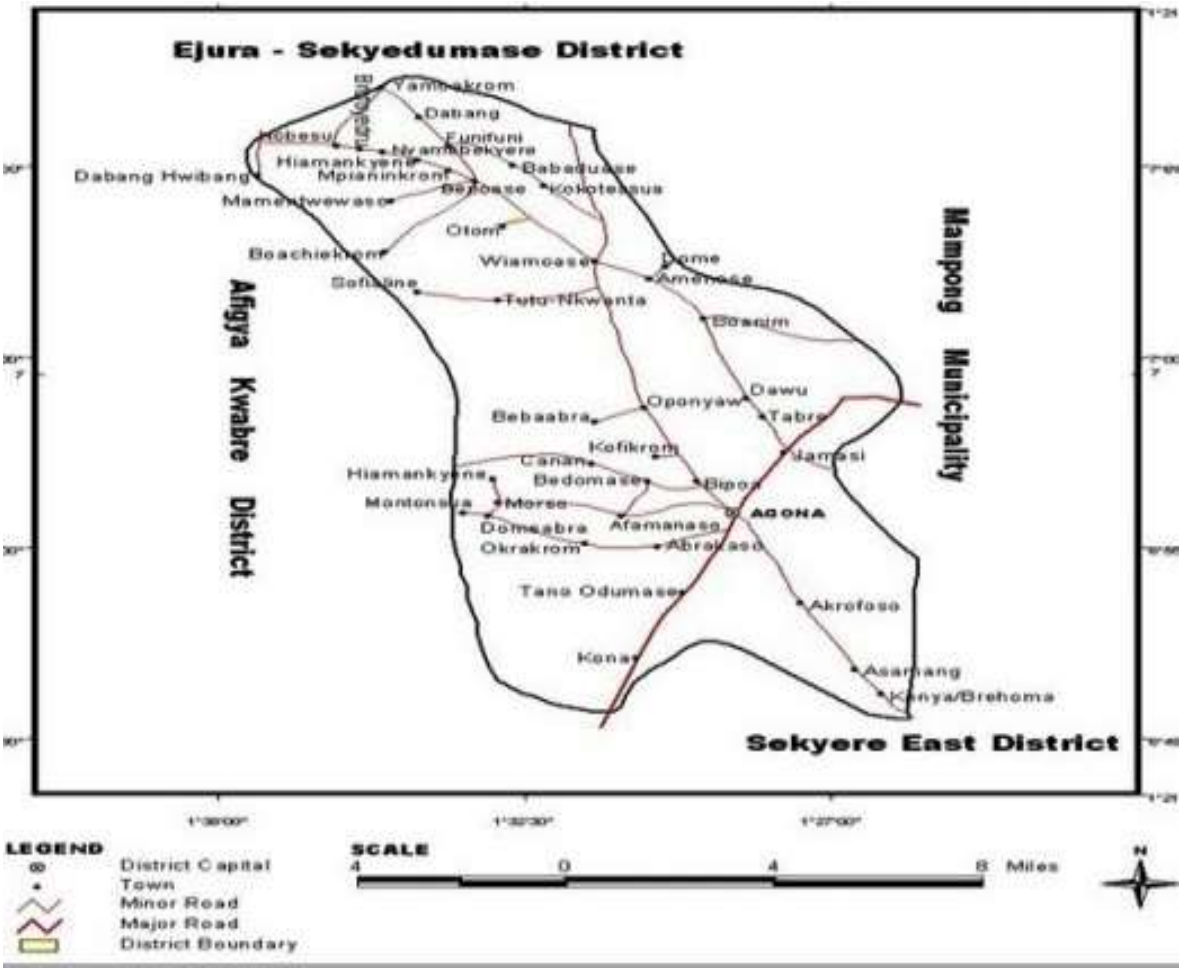


Figure 3.1: Map of the Sekyere South District (Source: GSS, 2021)

3.3 Study Site

The study was conducted across multiple sites in the Sekyere South District, specifically institutions and communities that serve the deaf population. The selected sites include educational institutions, religious centres, and healthcare facilities, which provide a comprehensive perspective on the healthcare experiences of deaf individuals.

3.3.1 Ashanti School for the Deaf, Jamasi

The Ashanti School for the Deaf is a specialized educational institution located in Jamasi in the Sekyere South District. It provides both academic and vocational training to students who are deaf or hard of hearing. With an estimated student population of about 580, the school serves as a critical resource for the deaf community in the region. It offers a structured learning environment tailored to the needs of deaf students and also promotes social inclusion through extracurricular activities and community engagement programs.

3.3.2 Agona SDA Deaf Church

The Agona SDA Deaf Church is a congregation under the Mountain View Ghana Conference of the Seventh-day Adventist (SDA) Church in the Sekyere South District. With a membership of approximately 62 individuals, the church serves as a spiritual and social support system for the deaf community. It provides an inclusive space where members can worship and participate in church activities using sign language. Through Bible study groups, outreach programs, and community activities, the church fosters a strong sense of belonging and plays a vital role in the holistic development of its members.

3.3.3 Wiamoase SDA Hospital

This faith-based healthcare institution operates under the Seventh-day Adventist Church's healthcare network in the Sekyere South District. It provides medical care with a compassionate and faith-driven approach, serving hearing and deaf individuals. The

hospital is known for its patient-centered services and commitment to inclusivity in healthcare delivery.

3.3.4 Agona Government Hospital

This government-operated healthcare facility is one of the key public hospitals in the Sekyere South District. It serves the general population, including the deaf community, and provides essential healthcare services such as general consultations, specialized treatments, and emergency care. The hospital is crucial in addressing healthcare accessibility challenges for individuals with hearing impairments.

These study sites were carefully selected to capture diverse perspectives on healthcare access among the deaf community in the Sekyere South District. Including educational, religious, and healthcare institutions ensures a comprehensive assessment of the factors influencing healthcare experiences for deaf individuals in Ghana.

3.4 Study Population

The study population comprised deaf individuals residing in the Sekyere South District of Ghana, healthcare providers, and key stakeholders within the healthcare sector. According to the Ghana Statistical Service, the total number of deaf individuals in Ghana is approximately 211,712 (Akotey, 2024). An estimated deaf population of 566 pupils, including 157 Junior high pupils based on the school registry, are in the Ashanti School for the Deaf, and 62 members of the Deaf church, based on the church records. These included persons who are deaf seeking medical care in various healthcare facilities, sign

language interpreters assisting in healthcare settings, and healthcare professionals such as doctors, nurses, and administrative staff interacting with deaf patients.

3.4.1 Inclusion and Exclusion Criteria

The study included deaf individuals over twelve years old who had accessed healthcare services within the Sekyere South District and could provide firsthand accounts of their experiences. Healthcare professionals, including doctors, nurses, and administrative staff, who have directly interacted with deaf patients in providing healthcare services were also included. Sign language interpreters with experience assisting deaf individuals in healthcare settings and policymakers or representatives from advocacy organizations working on deaf rights and healthcare accessibility were considered for participation.

However, deaf individuals under 13 years and without healthcare services within the Sekyere South District were excluded, as were healthcare professionals without direct experience in treating or assisting deaf patients. Additionally, individuals without knowledge or interaction with the deaf community in a healthcare setting were excluded from the study.

3.5 Sample Size Estimation

The sample size for this study was determined using Yamane's formula (Yamane, 1967), which is suitable for estimating sample size from a known population:

$$n = \frac{N}{1 + N\,(e)2}$$

Where n is the sample size

N = population size

e = margin of error (precision level), typically 0.27% for a 95% confidence level. However, this study targeted the Deaf Community in the Sekyere South District, specifically members of the Deaf Church (62 members), the Ashanti School for the Deaf, Jamasi (157 Junior High pupils). Therefore, the target population for this study was estimated to be 219 deaf individuals who were included in the study, and healthcare providers at Wiamoasi and Agona hospitals. However, 187 participants completed the study and were included in the data analysis, comprising 167 deaf community members and 20 healthcare providers.

3.6 Sampling Techniques

This study employed a multi-stage sampling approach, incorporating convenience, stratified, and simple random sampling techniques. Firstly, a convenience sampling technique was used to select study locations, ensuring that communities with a significant deaf population, such as a Deaf church and Ashanti School for the Deaf, Jamasi, and healthcare facilities providing services to deaf individuals, including Wiamoasi and Agona hospitals, were included. Secondly, stratified sampling was used to categorize participants into different groups, such as deaf individuals, healthcare providers, and sign language interpreters. Finally, within each stratum, simple random sampling was used to select individual participants, ensuring equal representation and minimizing selection bias.

3.7 Data Collection Tool(s)

The structured questionnaire was designed to obtain information on participants' socio-demographic characteristics, experiences in accessing healthcare services, communication barriers, and the quality of care received. It consists of a structured questionnaire, face-to-face interactions, and an observation checklist, which were also developed for data collection.

The observation checklist assessed real-time interactions between healthcare providers and deaf patients, focusing on communication methods, availability of sign language interpreters, and any observed barriers in service delivery.

3.8 Validity and Reliability

To ensure the validity of the data collection tools, experts in public health, disability studies, and healthcare accessibility reviewed the questionnaire, interview guide, and observation checklist for content and face validity. This review ensured that the tools adequately covered the study's key themes.

For reliability, a pilot study was conducted with 40 participants, including deaf individuals and healthcare providers, in a different community outside the Sekyere South District. The internal consistency of the structured questionnaire was assessed using Cronbach’s alpha coefficient, with a reliability score of 0.741 or higher considered acceptable. Feedback from the pilot study was used to refine the instruments' wording, structure, and clarity before the main study.

3.9 Data Collection Procedure

Data collection involved face-to-face interactions, structured questionnaires and direct observations. The principal investigator (PI) and trained research assistants administered the questionnaires, held face-to-face interactions, and recorded observational data. Additionally, interpreters were recruited and trained on the questionnaire to assist in the data collection, ensuring effective communication with deaf participants.

Structured questionnaires were used to gather quantitative data on participants' socio-demographics, healthcare-seeking behaviors, and experiences in healthcare facilities. Face-to-face interactions were conducted with selected deaf individuals, healthcare providers, and sign language interpreters to better understand challenges, coping mechanisms, and potential improvements in healthcare accessibility. Observations were carried out in selected healthcare facilities to document communication practices, interpreter availability, and any barriers encountered by deaf patients. Before data collection, participants were informed about the study’s objectives, and informed consent was obtained.

3.10 Data Management and Statistical Analysis

3.10.1 Data Management

The principal investigator (PI) ensured that all collected data were checked for completeness and consistency before entry. The data were initially entered into Microsoft Excel (version 2016) for preliminary organization, cleaning, and validation. Any incomplete or inconsistent responses were reviewed and corrected to ensure data

accuracy. The cleaned dataset was then exported into IBM SPSS version 22.0 for statistical analysis. Data security measures, such as password protection and restricted access, were implemented to maintain confidentiality and prevent unauthorized access.

3.10.2 Statistical Analysis

Data analysis employed both descriptive and inferential statistical methods. Descriptive statistics (frequencies and percentages) summarized the socio-demographic characteristics of respondents, including deaf individuals and healthcare providers. Chi-square tests were performed to examine associations between categorical variables such as gender, level of education, and access to healthcare services. Logistic regression analysis was conducted to assess factors influencing healthcare accessibility among the deaf community, controlling for potential confounders such as age, communication methods, and healthcare facility type. A p-value of less than 0.05 was considered statistically significant, and a 95% confidence interval was applied to all statistical tests.

3.11 Ethical Review and Clearance

Ethical approval for this study was obtained from the Committee on Human Research, Publications, and Ethics (CHRPE) at Kwame Nkrumah University of Science and Technology (KNUST). The ethical clearance reference number is CHRPE/AP/169/25. Permission was obtained from relevant institutions, including Ghana Education Service (GES), the leadership of the Agona Deaf church, Ashanti School for the Deaf, Jamasi, and health facilities (Wiamoasi and Agona hospitals) where the study was conducted.

Participants were provided with a detailed explanation of the study's objectives, procedures, and potential benefits. They were informed that participation was voluntary, and they had the right to withdraw at any time without any repercussions. Written informed consent was obtained from all participants before data collection. For deaf participants, sign language interpreters were present to ensure proper communication and understanding of the study. Confidentiality and anonymity were strictly maintained by ensuring that no personal identifiers were recorded in the dataset, and all collected data were stored securely with restricted access.

CHAPTER FOUR

RESULT

4.0 Introduction

This chapter presents the study's results. The presentation is based on the specific objectives and covers the following subheadings: Demographic Characteristics of Participants, Communication Barriers of the Deaf Community, Healthcare Experiences, and Health Facility Practices among the Deaf Community in the Sekyere South District.

4.1 Demographic Characteristics of Participants

This study comprised 167 deaf community members from the Agona Deaf church and Ashanti School for the Deaf, Jamasi and 20 healthcare providers from Wiamoasi and Agona hospitals. In Table 4.1, most participants (70.1%) were recruited from Jamasi Deaf School. A total of 42.5% were aged between 18 and 24 years, 53.3% were male, and 88.0% used sign language. Additionally, 65.3% were students, and 70.7% primarily accessed public hospitals as their preferred healthcare facility. In Table 4.2, 50.0% of healthcare providers were from Wiamoasi Hospital, 65.0% were aged between 18 and 35 years, and 50.0% were diploma holders. Additionally, 45.0% were nurses, and most (45.0%) had 1–5 years of experience.

Table 4.1: Demographic characteristics of deaf participants

Demographic Characteristics	Frequency (N= 167)	Percentage %
Deaf Institutions		
Deaf church	50	29.9
Jamasi deaf school	117	70.1
Age		
13-17	64	38.3
18-24	71	42.5
25-35	17	10.2
36-44	15	9.0
Gender		
Male	89	53.3
Female	78	46.7
Primary Mode of Communication		
Sign language	151	90.4
Lip reading	9	5.4
Writing	7	4.2
Employment Status		
Employed	24	14.4
Unemployed	34	20.4
Student	109	65.3
Healthcare facility mainly used		
Public hospital	118	70.7
Private hospital	21	12.6
Community clinic	11	6.6
Herbal/Alternative medicine	17	10.2

(Data Source: Field Data, 2025)

Table 4.2: Demographic characteristics of healthcare providers

Demographic Characteristics	Frequency (N= 20)	Percentage %
Healthcare facility		
Wiamoasi Hospital	10	50.0
Agona Hospital	10	50.0
Age		
18-35	13	65.0
36-55	7	35.0
Educational level		
Diploma	10	50.0
Bachelor's degree	7	35.0
Doctorate	3	15.0
Role in the healthcare facility		
Nurse	9	45.0
Pharmacist	2	10.0
Doctor/Administrative Staff	2	10.0
Others (Midwife/lab tech/etc.)	7	35.0
Years of experience		
< 1 years	3	15.0
1-5 years	9	45.0
6-10 years	5	25.0
> 10 years	3	15.0

(Data Source: Field Data, 2025)

4.2 Communication Barriers of the Deaf Community in Communicating with Healthcare Providers

In Tables 4.3 and 4.4, 49.7% of healthcare providers do not know sign language, and 34.1% of the deaf community have been denied healthcare due to communication barriers. Writing (34.1%) and sign language interpreters (31.1%) were the predominant modes of communication with healthcare providers. Most participants (61.1%) felt that healthcare providers tried to communicate with them. Additionally, 44.3% had avoided seeking medical care due to communication difficulties, and 48.5% had experienced misdiagnosis due to communication challenges. Only 16.8% of the healthcare facilities provide interpreters or other communication support to the deaf communities when

accessing healthcare services. Only 13.8% felt comfortable communicating with healthcare providers. The majority (74.3%) indicated that having more interpreters would improve their healthcare experience, and 42.5% had received health education materials in an accessible format.

Table 4.3: Communication barriers

Variables	Frequency (N= 167)	Percentage %
Healthcare providers know sign language		
Yes	45	26.9
No	83	49.7
Some do	39	23.4
Ever been denied healthcare due to communication barriers		
Yes	57	34.1
No	110	65.9
How do you communicate with healthcare providers		
Sign language interpreter	52	31.1
Writing	57	34.1
Lip reading	30	18.0
Family assistance	28	16.8
Feel that healthcare providers make an effort to communicate with you		
Always	102	61.1
Sometimes	35	21.0
Rarely	6	3.6
Never	24	14.4

(Data Source: Field Data, 2025)

Table 4.4: Other communication barriers

Variables	Frequency (N= 167)	Percentage %
Ever avoided seeking medical care due to communication difficulties.		
Yes	74	44.3
No	93	55.7
Experienced misdiagnosis due to communication challenges		
Yes	81	48.5
No	86	51.5
Healthcare facilities provide interpreters or other communication support.		
Yes	28	16.8
No	84	50.3
Sometimes	55	32.9
How comfortable are you communicating with healthcare providers		
Very comfortable	23	13.8
Somewhat comfortable	47	28.1
Neutral	13	7.8
Uncomfortable	76	45.5
very uncomfortable	8	4.8
Method of communication would improve your healthcare experience		
More interpreters	124	74.3
Digital communication aids	16	9.6
written materials	12	7.2
Training for healthcare staff	15	9.0
Received any health education materials in an accessible format		
Yes	71	42.5
No	96	57.5

(Data Source: Field Data, 2025)

Table 4.5: Factors contribute to communication barriers: denied healthcare

Factors	Denied Healthcare		Independence χ^2	P-value
	Yes (%)	No (%)		
Deaf Institutions				
Deaf Church	17 (29.8)	33(30.0)	1.000	0.564
Jamasi deaf school	40(70.2)	77(70.0)		
Age				
13-17	22(38.6)	42(38.2)	1.118	0.773
18-24	25(43.9)	46(41.8)		
25-35	4(7.0)	13(11.8)		
36-44	6(10.5)	9(8.2)		
Primary mode of communication				
Sign language	47(82.4)	104(94.6)	6.775	**0.034**
Lip reading	5(8.8)	4(3.6)		
Writing	5(8.8)	2(1.8)		
Employment status				
Employed	8(14.0)	16(14.5)	0.081	0.961
Unemployed	11(19.3)	23(20.9)		
Student	38(66.7)	71(64.5)		
The type of healthcare used				
Public hospital	37(64.9)	81(73.6)	1.515	0.679
Private hospital	9(15.8)	12(10.9)		
Community clinic	4(7.0)	7 (6.4)		
Herbal/alternative medicine	7(12.3)	10(9.1)		

(Data Source: Field Data, 2025)

4.2.1 Factors Contribute to Communication Barriers of the Deaf Community in Communicating with Healthcare

Table 4.5 shows that the primary mode of communication is linked to the denial of accessing healthcare services among the deaf community in the Sekyere South District ($\chi 2$=6.775, p=0.034). In Table 4.6, participants who used sign language as their primary communication code were six times more likely to be denied access to healthcare than those who used other communication [AOR=5.58 (1.04 – 29.96) p=0.045].

In Table 4.7, participants' deaf institutions, age, gender, primary mode of communication, employment status, and the type of healthcare facility they use were not impediments to seeking medical care (p> 0.05).

Table 4.6: Regression analysis for factors contributing to communication barriers: denied healthcare

Factors	Denied Healthcare (%)	X^2 (P-value)	AOR (95%CI) P-value
Deaf Institutions			
Deaf Church	17 (29.8)	1.00 (0.564)	0.93 (0.39, 2.23) 0.930
Jamasi deaf school	40(70.2)		Ref:
Mode of communication			
Sign language	47(82.4)	6.78 **(0.034)**	**5.58** (1.04, 29.96) 0.045
Lip reading	5(8.8)		1.94 (0.23, 16.35) 0.541
Writing	5(8.8)		Ref:
Employment status			
Employed	8(14.0)	0.08 (0.961)	1.26 (0.39, 4.05) 0.704
Unemployed	11(19.3)		1.17 (0.49, 2.81) 0.720
Student	38(66.7)		Ref:

(Data Source: Field Data, 2025)

Table 4.7: Factors contribute to communication barriers: avoided seeking medical care

Factors	Avoided seeking medical care		Independence χ^2	P-value
	Yes	No		
Deaf Institutions				
Deaf Church	28(37.8)	22(23.7)	3.951	0.35
Jamasi deaf school	46(62.2)	71(76.3)		
Age				
13-17	22(29.7)	42(45.2)	6.381	0.094
18-24	35(47.3)	36(38.7)		
25-35	7(9.5)	10(10.8)		
36-44	10(13.5)	5(5.4)		
Gender				
Male	41(55.4)	48(51.6)	0.238	0.370
Female	33(44.6)	45(48.4)		
Primary mode of communication				
Sign language	63(85.1)	88(94.6)	4.962	0.084
Lip reading	7(9.4)	2(2.2)		
Writing	4(5.5)	3(3.2)		
Employment status				
Employed	15(20.3)	9(9.7)	3.923	0.141
Unemployed	13(17.6)	21(22.6)		
Student	46(62.2)	63(67.7)		
Type of healthcare mostly use				
Public hospital	55(74.3)	63(67.7)	3.327	0.344
Private hospital	10(13.5)	11(11.8)		
Community clinic	5(6.8)	6(6.5)		
Herbal/alternative medicine	4(5.4)	13(14.0)		

(Data Source: Field Data, 2025)

4.3 Healthcare Experiences

Table 4.8 and Table 4.9 show the healthcare experiences of deaf communities in the Sekyere South District. A total of 38.3% visit healthcare facilities regularly. Most (66.4%) receive medical attention within an hour. Additionally, 42.5% have experienced discrimination in a healthcare setting due to being deaf. Only 13.8% were provided with

an interpreter during their last visit to a healthcare facility. A majority (51.5%) always feel that their health concerns are understood by healthcare providers. Furthermore, 34.1% feel very satisfied, while 37.1% are satisfied with the quality of healthcare they receive. About 41.3% reported having been prescribed the wrong treatment due to communication difficulties. Only a few (16.8%) receive follow-up care after treatment, and a majority (55.1%) always feel safe and respected when accessing healthcare services.

Table 4.8: Healthcare experiences

Variables	Frequency (N= 167)	Percentage %
How often do you visit a healthcare facility		
Regularly	64	38.3
Occasionally	24	14.4
Rarely	51	30.5
Never	28	16.8
How long do you usually wait to receive medical attention		
< 30mins	56	33.5
30min-1hour	55	32.9
1-2hours	28	16.8
>2 hours	28	16.8
Ever felt discriminated against in a healthcare setting due to being deaf		
Yes	71	42.5
No	96	57.5
Provided with an interpreter during your last visit to a healthcare facility		
Yes	23	13.8
No	144	86.2
Feel that your health concerns are understood by healthcare providers		
Always	86	51.5
Sometimes	57	34.1
Rarely	10	6.0
Never	14	8.4

(Data Source: Field Data, 2025)

Table 4.9: Healthcare experiences

Variables	Frequency (N= 167)	Percentage %
How satisfied are you with the quality of healthcare you receive		
very satisfy	57	34.1
Satisfy	62	37.1
Neutral	9	5.4
Dissatisfied	35	21.0
Very dissatisfied	4	2.4
Ever been prescribed the wrong treatment due to communication difficulties		
Yes	69	41.3
No	98	58.7
Do you receive follow-up care after treatment		
Yes	28	16.8
No	100	59.9
Sometimes	39	23.4
Do you feel safe and respected when accessing healthcare services		
Always	92	55.1
Sometimes	38	22.8
Rarely	16	9.6
Never	21	12.6

(Data Source: Field Data, 2025)

4.3.1 Factors that Influence Healthcare Experiences of the Deaf Community in the Sekyere South District

Table 4.10 shows that deaf institution, age, and employment status were factors that contributed to the healthcare experiences of the deaf community in terms of being discriminated against when accessing healthcare due to their deafness in the Sekyere South District of Ghana (χ^2=18.966, p= 0.000), (χ^2=16.781, p= 0.001), and (χ^2=19.26, p= 0.000), respectively.

In Table 4.11, participants from the deaf church were 68% less likely to be discriminated against than those from Jamasi deaf school [AOR= 0.32 (0.12 – 0.85) p=0.021]. Participants aged 13-17 were five times more likely to be discriminated against when accessing healthcare than their older counterparts [AOR=4.9 (1.50 – 16.01) p=0.009]. Participants who were unemployed were 64% less likely to be discriminated against than their counterparts [AOR=0.36 (0.15 – 0.86) p=0.0021].

Table 4.12 shows that deaf institution was a factor in the healthcare experiences of the deaf community in terms of being provided with interpreters when accessing healthcare due to their deafness (χ^2=8.985, p= 0.004).

In Table 4.13, participants from the deaf church were 69% less likely to be provided with interpreters than those from Jamasi deaf school [AOR= 0.21 (0.01 – 0.63) p= 0.006].

Table 4.10: Factors that influence healthcare experiences of deaf community: discrimination against

Factors	Discriminate against		Independence χ^2	P-value
	Yes	No		
Deaf Institutions				
Deaf Church	34(47.9)	16(16.7)	18.966	**0.000**
Jamasi deaf school	37(52.1)	80(83.3)		
Age				
13-17	15(21.1)	49(51.0)	16.781	**0.001**
18-24	36(50.7)	35(36.4)		
25-35	11(15.5)	6(6.3)		
36-44	9(12.7)	6(6.3)		
Gender			1.705	0.212
Male	42(59.2)	47(49.0)		
Female	29(40.8)	49(51.0)		
Primary mode of communication				
Sign language	63(88.8)	88(91.7)	0.665	0.717
Lip reading	4(5.6)	5(5.2)		
Writing	4(5.6)	3(3.1)		
Employment status				
Employed	16(22.5)	8(8.3)	19.260	**0.000**
Unemployed	22(31.0)	12(12.5)		
Student	33(46.5)	76(79.2)		
Type of healthcare mostly use				
Public hospital	54(76.1)	64(66.7)	3.188	0.364
Private hospital	9(12.7)	12(12.5)		
Community clinic	4(5.6)	7(7.3)		
Herbal/alternative medicine	4(5.6)	13(13.5)		

(Data Source: Field Data, 2025)

Table 4.11: Regression analysis for factors that influence healthcare experiences of deaf community: discrimination against

Factors	Discriminate against (%)	X^2 (P-value)	AOR (95%CI) P-value
Deaf Institutions			
Deaf Church	34(47.9)	**18.9 (0.000)**	0.32 (0.12, 0.85) **0.021**
Jamasi deaf school	37(52.1)		Ref:
Age			
13-17	15(21.1)	**16.8 (0.001)**	4.9 (1.50, 16.01) **0.009**
18-24	36(50.7)		1.5 (0.47, 4.53) 0.514
25-35	11(15.5)		0.8 (0.20, 3.43) 0.784
36-44	9(12.7)		Ref:
Employment status			
Employed	16(22.5)	**19.3 (0.000)**	0.44 (0.11, 1.67) 0.226
Unemployed	22(31.0)		0.36 (0.15, 0.86) **0.021**
Student	33(46.5)		Ref:

(Data Source: Field Data, 2025)

Table 4.12: Factors that influence healthcare experiences of deaf community: provided with an interpreter

Factors	Provided with an interpreter		Independence χ^2	P-value
	Yes	No		
Deaf Institutions				
Deaf Church	13(56.5)	37(25.7)	8.985	0.004
Jamasi deaf school	10(43.5)	107(74.3)		
Age				
13-17	6(26.2)	58(40.3)	1.924	0.588
18-24	11(47.8)	60(41.7)		
25-35	3(13.0)	14(9.7)		
36-44	3(13.0)	12(8.3)		
Gender			0.013	0.542
Male	12(52.2)	77(53.5)		
Female	11(47.8)	67(46.6)		
Mode of communication				
Sign language	20(87.0)	131(91.0)	1.380	0.502
Lip reading	1(4.3)	8(5.6)		
Writing	2(8.7)	5(3.4)		
Employment status				
Employed	4(17.4)	20(13.9)	4.138	0.126
Unemployed	8(34.8)	26(18.1)		
Student	11(47.8)	98(68.1)		
Type of healthcare mostly use				
Public hospital	13(56.5)	105(72.9)	9.492	0.23
Private hospital	7(30.5)	14(9.7)		
Community clinic	0(0.0)	11(7.6)		
Herbal/alternative medicine	3(13.0)	14(9.7)		

(Data Source: Field Data, 2025)

Table 4.13: Regression analysis for factors that influence healthcare experiences of deaf community: provided with an interpreter

Factors	Provided with an interpreter (%)	X^2 (P-value)	AOR (95%CI)	P-value
Deaf Institutions				
Deaf Church	13(56.5)	8.98 (0.004)	0.21 (0.07, 0.63)	0.006
Jamasi deaf school	10(43.5)		Ref:	
Age				
13-17	6(26.2)	1.92 (0.588)	0.73 (0.12, 4.26)	0.721
18-24	11(47.8)		0.61 (0.13, 2.84)	0.529
25-35	3(13.0)		1.4 (0.23, 8.17)	0.739
36-44	3(13.0)		Ref:	

(Data Source: Field Data, 2025)

4.4 Health Facility Practices

In Tables 4.14 and 4.15, most healthcare providers (60.0%) lack formal training, and 75.0% of facilities do not offer sign language interpreters. While 70.0% have seen visual aids, only 25.0% provide written or digital communication tools. Additionally, 40.0% of staff are willing to use alternative methods, but only 25.0% reported having accessibility policies. Scheduling appointments (55.0%) and providing discharge instructions (60.0%) are challenging due to poor communication support. Despite these issues, 60.0% of providers believe healthcare facilities prioritize the needs of deaf patients.

Table 4.14: Health facility practices

Variables	Frequency (N= 20)	Percentage %
Received formal training on communicating with deaf patients		
Yes	8	40.0
No	12	60.0
Healthcare facility provides sign language interpreters		
Yes	2	10.0
No	15	75.0
Sometimes	3	15.0
Ever seen visual aids for communication in facilities		
Yes	14	70.0
No	6	30.0
Healthcare facilities provide written materials or digital tools to assist with communication		
Yes	5	25.0
No	15	75.0
Healthcare staff willing to use alternative communication methods (e.g., writing, gestures)		
Always	8	40.0
Sometimes	9	45.0
Never	3	15.0
Policies in place to ensure accessibility for deaf patients in healthcare facilities		
Yes	5	25.0
No	15	75.0

(Data Source: Field Data, 2025)

Table 4.15: Health facility practices

Variables	Frequency (N= 20)	Percentage %
Ease schedules a healthcare appointment with a deaf patient.		
Easy	2	10.0
Neutral	2	10.0
Difficult	5	25.0
Very Difficult	11	55.0
Had difficulty with discharge instructions due to a lack of communication support		
Yes	12	60.0
No	8	40.0
Healthcare facilities prioritize the needs of deaf patients.		
Yes	12	60.0
No	8	40.0

(Data Source: Field Data, 2025)

In table 4.15 the data reveal significant communication and accessibility challenges faced by healthcare providers and deaf patients. A majority of respondents (55%) indicated that scheduling a healthcare appointment with a deaf patient was *very difficult,* while only 10% found it *easy*. This suggests that healthcare systems in the area lack effective structures or support mechanisms to facilitate communication and appointment coordination with deaf individuals. Additionally, 60% of respondents reported having *difficulty with discharge instructions* due to a lack of communication support, highlighting how communication barriers extend beyond consultation to affect continuity of care and patient safety.

Interestingly, despite these challenges, 60% of respondents believed that healthcare facilities *prioritize the needs of deaf patients*, though the persistence of communication

difficulties suggests that such prioritization may be more policy-based than practical. Overall, the data indicate that while there may be some awareness of the need to support deaf patients, significant gaps remain in practical implementation, staff training, and communication accessibility within healthcare facilities.

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter discusses the study's key findings, which explored and investigated the experiences of deaf individuals in accessing healthcare services within the Sekyere South District of Ghana. The discussion is structured around the study's specific objectives, focusing on the barriers faced by deaf individuals in healthcare settings, the effectiveness of communication methods used by healthcare providers, and the overall accessibility of healthcare services for the deaf community. Access to healthcare is a fundamental right, yet deaf individuals frequently face considerable obstacles in medical environments. Communication barriers, the unavailability of sign language interpreters, and healthcare providers' limited awareness of their unique needs contribute to these challenges. As a result, misdiagnoses, insufficient treatment, and dissatisfaction with healthcare services are common. Furthermore, the lack of inclusive health policies and assistive communication technologies further hinders their ability to receive timely and appropriate medical care. This chapter critically examines the findings in relation to existing literature and health accessibility frameworks.

5.1 Communication Barriers of the Deaf Community in Communicating with Healthcare Providers

Effective communication is essential in healthcare delivery, yet this study found that about 50% of healthcare providers in the Sekyere South District do not know sign

language, significantly limiting their ability to engage with deaf patients. This finding aligns with previous research indicating that inadequate sign language proficiency among healthcare professionals contributes to poor health outcomes for deaf individuals (Yet et al., 2022). The study further revealed that 34.1% of the deaf community had been denied healthcare due to communication barriers, reinforcing concerns about healthcare inequities faced by people with disabilities (Powell, 2021). Additionally, while writing (34.1%) and using sign language interpreters (31.1%) were identified as the predominant communication methods, only 16.8% of healthcare facilities provided interpreters or alternative communication support. This lack of inclusive communication strategies often leads to miscommunication, delays in treatment, and misdiagnoses, as reported by 48.5% of the participants. The findings highlight the critical need for healthcare institutions to adopt more inclusive communication models, such as training staff in basic sign language and providing accessible health information to deaf patients (Hall & Ballard, 2024).

The study also found that 61.1% of deaf individuals felt that healthcare providers made efforts to communicate with them, yet only 13.8% felt comfortable during medical consultations. This suggests that while there is some willingness among providers to engage with deaf patients, the lack of structured communication training and supportive policies limits its effectiveness. Previous studies have shown that patient-provider interactions significantly improve when healthcare workers receive specialized training in communicating with patients with disabilities (Hashemi et al., 2022). Furthermore, 44.3% of deaf individuals reported avoiding healthcare services due to communication difficulties, which may contribute to delayed diagnoses and poorer health outcomes.

These findings are consistent with the structural barriers identified in other studies, where the absence of trained interpreters and accessible medical information significantly hinders healthcare access for deaf individuals (Jacob et al., 2022). The study also highlights the need for healthcare policies that prioritize disability inclusion by ensuring that all health facilities have trained interpreters and provide accessible health education materials (Espinoza & Derrington, 2021).

Improving communication between healthcare providers and deaf individuals requires a multi-faceted approach, including policy reforms, healthcare staff training, and integrating assistive communication technologies. The study found that 74.3% of participants believed having more interpreters would improve their healthcare experiences, while 42.5% had previously received health education materials in accessible formats. These findings emphasize the importance of promoting inclusive healthcare practices through the implementation of sign language training programs, increased interpreter availability, and the development of health education materials in formats suitable for the deaf community (Morisod et al., 2022). Healthcare providers and policymakers must collaborate to establish national guidelines that mandate inclusive communication strategies in healthcare facilities. Additionally, public health initiatives should focus on raising awareness of the challenges faced by the deaf community in accessing medical care. By addressing these systemic issues, healthcare institutions can foster a more inclusive and equitable healthcare environment that ensures deaf individuals receive timely and appropriate medical attention.

5.1.1 Factors Contributing to Communication Barriers of the Deaf Community in Communicating with Healthcare Providers

The study revealed that the primary mode of communication significantly affects access to healthcare among the deaf community in the Sekyere South District. There is a statistically significant association between primary communication mode and denial of healthcare services ($\chi 2=6.775$, $p=0.034$). Participants who primarily used sign language were found to be six times more likely to be denied access to healthcare services compared to those using other forms of communication [AOR=5.58 (1.04 – 29.96), p=0.045]. This finding aligns with previous studies by (Myers et al., 2022) and (Korkoryi Jr, 2024), asserting that healthcare providers' proficiency in sign language often leads to communication breakdowns and subsequent barriers to accessing care. The absence of trained interpreters in most healthcare facilities further exacerbates this issue, limiting effective communication between deaf patients and healthcare providers. Consequently, the study supports the growing call for the inclusion of sign language training in healthcare professional curricula and the recruitment of interpreters to facilitate effective communication (Fino et al., 2022).

Additionally, the study found that demographic factors such as age, gender, primary mode of communication, employment status, and the type of healthcare facility used by deaf individuals did not significantly impede their ability to seek medical care ($p>0.05$). This finding is consistent with research by (Abou-Abdallah & Lamyman, 2021), which suggests that while demographic characteristics influence general health-seeking behaviours, the primary barrier for deaf individuals remains ineffective communication.

The lack of significant associations between these demographic factors and healthcare access challenges suggests that the main impediment is institutional, rather than personal. This highlights the urgent need for structural reforms in the healthcare system to ensure inclusive communication strategies are implemented. Moreover, healthcare policies should mandate the availability of assistive communication devices and trained personnel in medical facilities to bridge the communication gap and improve health outcomes for the deaf community (Almusawi et al., 2021).

Finally, the study underscores the importance of raising awareness among healthcare providers regarding the specific challenges faced by the deaf community. Many healthcare workers may be unaware of the difficulties deaf individuals encounter, resulting in unintentional discrimination. Similar findings have been reported by (Rezende et al., 2021), who emphasized that a lack of cultural competence among medical staff contributes to disparities in healthcare access. Implementing regular training programs for healthcare providers on disability inclusion and developing policies promoting sign language use in medical settings could significantly improve healthcare accessibility for the deaf population. Additionally, leveraging digital communication tools such as video relay services and mobile health applications with sign language translation features could enhance healthcare interactions and reduce communication barriers (Rivas Velarde et al., 2022). Addressing these gaps is critical to ensuring that the deaf community in Ghana receives equitable and quality healthcare services.

5.2 Healthcare Experiences of the Deaf Community in the Sekyere South District

The findings of this study reveal both positive and negative healthcare experiences among deaf individuals in the Sekyere South District of Ghana. While a notable percentage (38.3%) of participants reported regular visits to healthcare facilities, challenges related to communication, discrimination, and treatment errors persist. The study shows that 42.5% of respondents have experienced discrimination in healthcare settings, which aligns with findings from (Duorinaah et al., 2023), who reported that deaf individuals often face stigma and exclusion when seeking medical care. The low availability of interpreters (13.8%) further exacerbates these challenges, as supported by (Olson & Swabey, 2017), who highlight the critical role of sign language interpreters in facilitating effective communication in healthcare settings. Without proper interpretation services, deaf patients are at a higher risk of misdiagnosis and inadequate treatment, a concern echoed by (Badu et al., 2016), who found that language barriers contribute significantly to healthcare disparities among individuals with disabilities.

Despite these challenges, the study also found that 51.5% of respondents always feel that healthcare providers understand their health concerns. This suggests that some healthcare workers try to bridge communication gaps, possibly through written notes, gestures, or digital translation applications. The satisfaction rate with healthcare services, with 34.1% feeling very satisfied and 37.1% satisfied, indicates a moderate acceptance of current healthcare practices. However, the high rate (41.3%) of respondents who reported being prescribed the wrong treatment due to communication difficulties raises serious concerns about patient safety and the quality of care. This finding is consistent with research by

(Appiah et al., 2018a), who emphasized that communication barriers between healthcare providers and patients with hearing impairments often lead to medical errors, misinterpretations of symptoms, and inappropriate prescriptions.

Furthermore, the study highlights a lack of comprehensive post-treatment care, as only 16.8% of respondents reported receiving follow-up care after treatment. This is problematic, as continuous monitoring and follow-up care are essential for managing chronic conditions and ensuring treatment adherence. However, the study also found that 55.1% of participants feel safe and respected when accessing healthcare services. This finding aligns with (Acheampong et al., 2022), who observed that while structural and communication challenges persist, some healthcare providers demonstrate empathy and respect towards deaf patients. Improving healthcare experiences for the deaf community requires implementing policies that prioritize sign language interpretation services, disability awareness training for healthcare providers, and strategies to reduce communication-related medical errors. These interventions can enhance healthcare accessibility, reduce discrimination, and ultimately improve the overall well-being of the deaf population in the Sekyere South District of Ghana.

5.2.1 Factors that Influence Healthcare Experiences of the Deaf Community in the Sekyere South District

The findings of this study highlight significant factors influencing the healthcare experiences of the deaf community in the Sekyere South District, particularly regarding discrimination, interpreter availability, and overall satisfaction with healthcare services.

The study revealed that deaf institutions, age, and employment status significantly contributed to the experiences of discrimination faced by the deaf community when accessing healthcare services. Participants from Jamasi Deaf School were more likely to experience discrimination than those affiliated with a deaf church. This aligns with the findings of (Opoku et al., 2024), who emphasized that institutional environments shape individuals' expectations and interactions with external systems, including healthcare. The results further indicate that younger participants (aged 13-17 years) were nearly five times more likely to experience discrimination than their older counterparts. This corroborates the findings of (Seidu et al., 2021), who noted that younger individuals with disabilities often face higher levels of stigma and exclusion due to limited autonomy and advocacy skills. Additionally, employed participants were found to experience higher levels of discrimination than unemployed individuals. This may be attributed to increased social exposure and interactions in workplace settings, which may make employed deaf individuals more aware of discriminatory practices in healthcare settings (Opoku et al., 2024).

Interpreter availability significantly influenced healthcare experiences, as only 13.8% of participants reported receiving interpretation services during their last visit to a healthcare facility. The study found that participants affiliated with a deaf church were 69% less likely to receive interpreters than those from Jamasi Deaf School. This is consistent with research by (Nimoh, 2024), which indicates that formal deaf institutions often have stronger advocacy structures that demand accessible healthcare services for their members. In contrast, informal deaf groups, such as those in religious settings, may lack

these structures. Furthermore, healthcare providers' lack of sign language proficiency may contribute to the low provision of interpreters, as highlighted by (Adade et al., 2023a), who reported that the absence of trained interpreters in healthcare facilities leads to communication barriers and misdiagnoses.

The overall healthcare experiences of the deaf community were shaped by these factors, with a substantial proportion (42.5%) reporting discrimination in healthcare settings. Furthermore, 41.3% reported being prescribed incorrect treatment due to communication difficulties. These findings align with studies by (Mprah et al., 2024), who reported that communication barriers in healthcare disproportionately affect deaf individuals, leading to misdiagnoses, incorrect prescriptions, and overall dissatisfaction with care. However, despite these challenges, more than half (55.1%) participants indicated they always felt safe and respected when accessing healthcare. This suggests that while discrimination persists, there are instances of positive engagement with healthcare providers, possibly influenced by increasing awareness and inclusive healthcare policies (Tengepare, 2022). Addressing these issues requires targeted policy interventions, including training healthcare workers in sign language, integrating interpreters into healthcare facilities, and enhancing disability-friendly policies to ensure equitable healthcare access for the deaf community.

5.3 Health Facility Practices and Accessibility Challenges for the Deaf Community

This study revealed significant barriers to healthcare access for deaf individuals in the Sekyere South District of Ghana, particularly regarding health facility practices. Findings indicate that the majority (60.0%) of healthcare providers lack formal training in communicating with deaf patients, and 75.0% of health facilities do not provide sign language interpreters. These results align with previous studies in Sub-Saharan Africa, where inadequate training and the absence of sign language services in healthcare settings have been identified as major obstacles to equitable care for deaf individuals (Baloyi et al., 2023) (Slome, 2023). The lack of trained personnel often results in miscommunication, misdiagnoses, and overall dissatisfaction with healthcare services (Mprah et al., 2025). Additionally, while 70.0% of providers have encountered visual aids in healthcare, only 25.0% of facilities offer written or digital communication tools, further exacerbating communication challenges for deaf patients. These findings are consistent with studies in Nigeria and Kenya, where similar gaps in accessible communication tools have been documented (Anyuabaga, 2024; Oyawole, 2021).

Another key finding was that while 40.0% of healthcare staff were willing to adopt alternative communication methods, only 25.0% of facilities reported having formal accessibility policies for deaf patients. This lack of institutional commitment to accessibility measures is concerning, as studies in South Africa and India have shown that healthcare institutions with established disability-inclusive policies significantly improve health outcomes for deaf individuals (Kuper et al., 2022) (Saran et al., 2023).

Furthermore, challenges in scheduling appointments (55.0%) and providing discharge instructions (60.0%) highlight the practical difficulties deaf patients face due to poor communication support. These findings align with research from Uganda, which found that limited accessibility measures often result in delayed treatments and poor adherence to medical instructions among deaf individuals (Myers et al., 2022). Given these barriers, there is an urgent need for comprehensive policy interventions that mandate the inclusion of sign language interpreters, digital communication tools, and formalized training programs for healthcare workers.

Despite these challenges, 60.0% of healthcare providers in the study believed that their facilities prioritize the needs of deaf patients. However, this perception may not reflect the actual experiences of deaf individuals, as demonstrated by studies in Rwanda and Ethiopia, where healthcare providers often overestimate their effectiveness in serving patients with disabilities (Hashemi et al., 2022) (Damtew & Yigezu, 2024). The discrepancy between provider perception and patient experience underscores the importance of incorporating feedback from the deaf community in healthcare policy development. To enhance healthcare accessibility for deaf individuals, facilities must implement structured training programs, invest in assistive technologies, and establish clear guidelines for inclusive healthcare practices. These measures will help bridge the communication gap, ensuring deaf patients receive timely and appropriate medical care.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the study's major findings, which explored and investigated the experiences of deaf individuals in accessing healthcare services within the Sekyere South District of Ghana. It highlights key findings related to communication barriers, healthcare experiences, and practices of the facility. The chapter also examines factors contributing to these challenges, including the availability of sign language interpreters, healthcare providers' communication skills, and institutional policies. Additionally, the chapter discusses the study's limitations, draws conclusions based on the findings, and provides recommendations for improving healthcare accessibility and equity for deaf individuals in Ghana.

6.2 Summary of the Key Findings

The study included 168 members of the deaf community from a deaf church and Jamasi Deaf School, as well as 20 healthcare providers from Wiamoasi and Agona hospitals. Most (70.1%) of deaf participants were from Jamasi Deaf School, with 42.5% aged between 18 and 24 years and 53.3% being male. Most participants (88.0%) used sign language, and 70.7% primarily accessed public hospitals. Among healthcare providers, 50.0% were from Wiamoasi Hospital, 65.0% were aged 18–35 years, and 50.0% held

diplomas. Nurses constituted 45.0% of the providers, and 45.0% had 1–5 years of experience.

Communication barriers significantly impact healthcare access for the deaf community. Nearly half (49.7%) of healthcare providers lacked sign language proficiency, leading to 34.1% of deaf participants being denied healthcare. Writing (34.1%) and sign language interpreters (31.1%) were the primary communication methods. Despite efforts from healthcare providers (61.1%), 44.3% of participants avoided medical care, and 48.5% experienced misdiagnosis due to communication challenges. Only 16.8% of healthcare facilities provided interpreters, and 13.8% of participants felt comfortable communicating with providers. The majority (74.3%) believed that increasing interpreters would improve their healthcare experience, while 42.5% had received health education materials in accessible formats.

Several factors contributed to communication barriers. The primary mode of communication was linked to healthcare denial (χ^2=6.775, p=0.034), with sign language users being six times more likely to be denied care than those using other methods [AOR=5.58 (1.04–29.96), p=0.045]. However, factors such as deaf institution, age, gender, employment status, and healthcare facility type did not significantly hinder seeking medical care (p>0.05).

Regarding healthcare experiences, 38.3% of deaf participants visited healthcare facilities regularly, and 66.4% received medical attention within an hour. However, 42.5%

experienced discrimination, 41.3% were prescribed incorrect treatments, and only 13.8% had an interpreter during their last visit. Over fifty percent (51.5%) felt their concerns were understood, and 34.1% were delighted with healthcare services. Discrimination was influenced by deaf institution (χ^2=18.966, p=0.000), age (χ^2=16.781, p=0.001), and employment status (χ^2=19.26, p=0.000). Participants from a deaf church were 68% less likely to face discrimination than those from Jamasi Deaf School [AOR=0.32 (0.12–0.85), p=0.021]. Younger participants (13–17 years) were five times more likely to face discrimination [AOR=4.9 (1.50–16.01), p=0.009]. Unemployed participants were 64% less likely to be discriminated against [AOR=0.36 (0.15–0.86), p=0.0021].

Healthcare facility practices also played a crucial role. Most providers (60.0%) lacked formal training in deaf communication, and 75.0% of facilities did not offer sign language interpreters. While 70.0% had seen visual aids, only 25.0% provided written or digital communication tools. Scheduling appointments (55.0%) and providing discharge instructions (60.0%) were major challenges due to poor communication support. Despite these issues, 60.0% of providers believed healthcare facilities prioritized deaf patients' needs.

6.3 Study Limitation

This study relied on self-reported information from deaf individuals, which introduces the possibility of recall bias, as participants may selectively report their experiences with healthcare access. Some respondents might have provided socially desirable responses rather than accurate reflections of their encounters with healthcare services, potentially

leading to data inaccuracies. To mitigate this, participants were assured of strict confidentiality and anonymity to encourage honest responses.

Additionally, the study was conducted within a specific geographical location, the Sekyere South District, using limited sample size and non-random sampling techniques. These factors may affect the generalizability of the findings to all deaf individuals in Ghana. Despite these limitations, the study provides valuable insights into the communication barriers and healthcare access challenges faced by the deaf community. The findings are essential for healthcare providers, policymakers, and disability rights advocates to develop inclusive healthcare policies and improve service delivery for the deaf community in Ghana.

6.4 Conclusion

Communication barriers significantly impact the ability of deaf individuals to access healthcare services in the Sekyere South District. Lack of sign language proficiency among healthcare providers led to frequent misunderstandings, misdiagnoses, and healthcare denial. Many deaf individuals relied on ineffective communication methods, such as writing, which further complicated their interactions with medical professionals.

Communication barriers between deaf patients and healthcare providers in the Sekyere South District result in serious consequences. Misunderstandings often lead to incorrect diagnoses, inappropriate treatments, and poor health outcomes. The absence of sign language–proficient staff further creates systemic barriers that deny deaf individuals equitable access to quality healthcare services. As a result, many experience frustration,

loss of trust, and reluctance to seek medical help, which deepens existing health inequalities.

In addition, reliance on ineffective communication methods such as writing or gestures fails to accurately convey complex medical information. This limits deaf individuals' ability to give informed consent and fully participate in healthcare decisions. To address these challenges, there is an urgent need for sign language training among healthcare providers, the recruitment of professional interpreters, and the adoption of inclusive communication policies across the district's health system.

The experiences of deaf individuals in accessing healthcare services were marked by discrimination, delays in care, and inadequate communication support. Many participants reported dissatisfaction with healthcare interactions, with younger individuals and those from certain institutions facing higher levels of discrimination.

The implications are that deaf individuals experience deep-seated inequalities in healthcare delivery, resulting in both poor health outcomes and emotional distress. Discrimination, delays in care, and lack of communication support reflect systemic neglect and the absence of disability-sensitive practices within the health system. Such experiences not only compromise their right to quality and timely healthcare but also erode trust in health institutions. The greater discrimination reported among younger deaf individuals and those from specific institutions points to persistent social stigma and unequal treatment, which can lead to avoidance of health facilities, increased

vulnerability to preventable diseases, and further marginalization of the deaf community in accessing essential health services.

Existing healthcare facilities were inadequate in meeting the needs of the deaf community. Most healthcare providers lacked formal training in deaf communication, and most facilities did not offer sign language interpreters or accessible health education materials. The absence of structured communication support hindered patient-provider interactions and affected the quality of care.

These conclusions imply that deaf individuals continue to experience significant challenges in accessing equitable and quality healthcare. The absence of trained healthcare providers, professional interpreters, and accessible health education materials creates major communication gaps that compromise diagnosis, treatment, and follow-up care. This lack of inclusion reflects deep-rooted systemic neglect of the needs of the deaf community within the healthcare system. As a result, many deaf individuals are denied their right to effective, inclusive, and patient-centered services, which perpetuates health inequalities and limits their overall well-being.

6.5 Recommendations

6.5.1 Ministry of Health (MoH)

- ✓ Develop and enforce policies mandating the inclusion of sign language interpreters in all healthcare facilities, particularly in public hospitals where deaf individuals seek care.

- ✓ Integrate visual and digital communication aids in hospitals, including written instructions and mobile-based sign language interpretation services.

6.5.2 Ghana Health Service (GHS)

- ➢ Implement mandatory sign language training for healthcare providers to improve communication with deaf patients and prevent misdiagnoses.
- ➢ Establish a sign language interpreter program in hospitals and clinics to ensure deaf patients receive accurate and timely healthcare services.

6.5.3 Ministry of Gender, Children, and Social Protection (MoGCSP)

- ➢ Advocate for equal healthcare rights for deaf individuals by working with healthcare institutions to eliminate discrimination and improve accessibility.
- ➢ Launch public awareness campaigns to sensitize healthcare providers and the general public on the challenges faced by deaf individuals in accessing healthcare services.

6.5.4 National Council on Persons with Disabilities (NCPD)

- ✓ Partner with the Ministry of Health to develop disability-inclusive healthcare policies, ensuring that deaf individuals receive quality care.
- ✓ Establish monitoring and evaluation systems to assess the compliance of healthcare facilities with disability-friendly policies.

6.5.5 Non-Governmental Organizations (NGOs) and International Agencies

- Support the training of healthcare workers in deaf communication skills by providing funding, resources, and technical expertise.
- Advocate for including deaf-friendly policies in national and international healthcare programs to ensure sustainable healthcare accessibility for the deaf community.

6.5.6 Future Research

- ✓ Conduct longitudinal studies to assess the long-term impact of communication barriers on the health outcomes of deaf individuals.
- ✓ Investigate the effectiveness of different communication interventions (e.g., mobile apps, trained interpreters, and visual aids) in improving healthcare accessibility for the deaf community.

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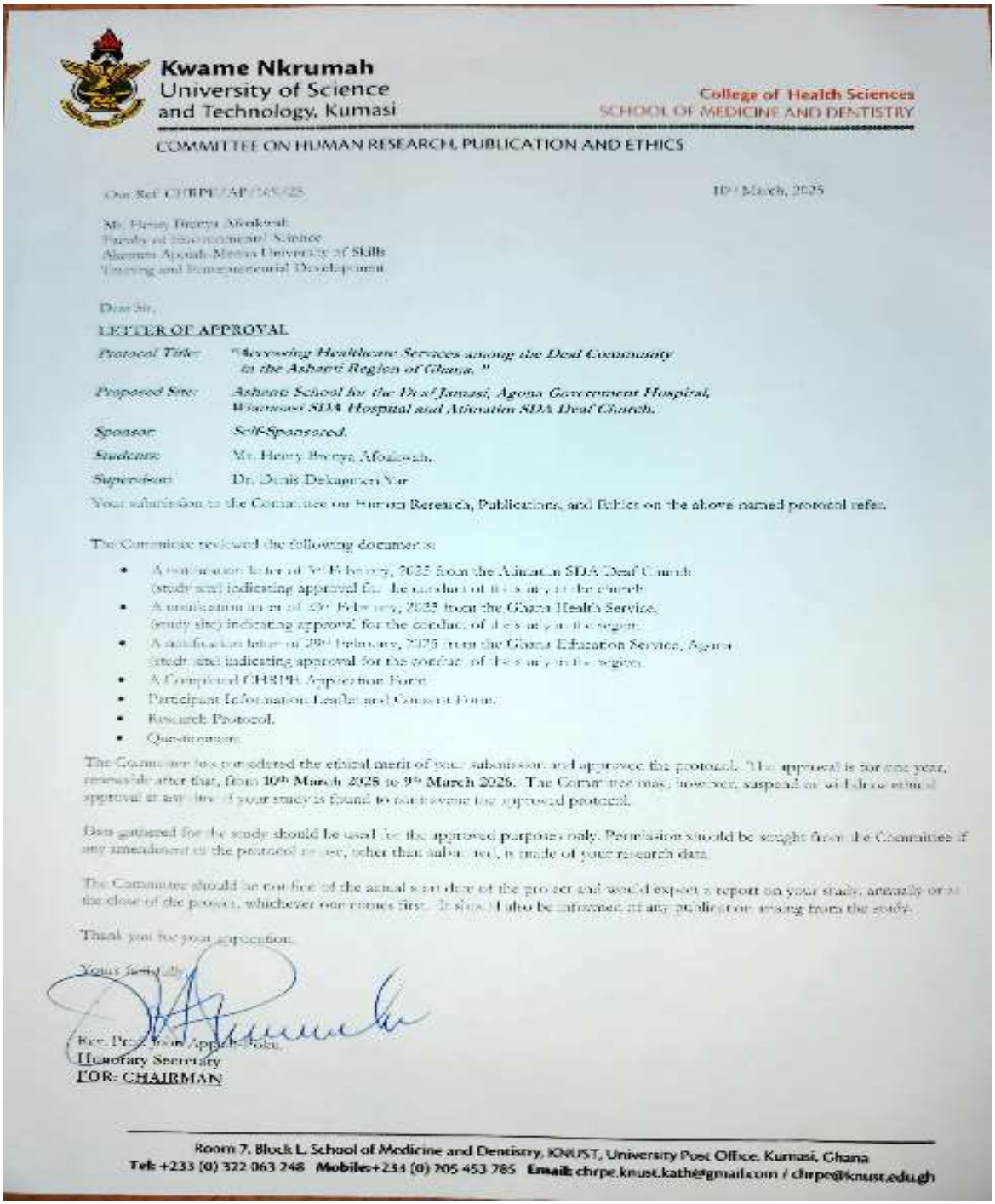
APPENDICES

APPENDIX 1

ETHICAL APPROVAL LETTER

Ethical Approval Letter from CHRPE-KNUST



Kwame Nkrumah
University of Science
and Technology, Kumasi

College of Health Sciences
SCHOOL OF MEDICINE AND DENTISTRY

COMMITTEE ON HUMAN RESEARCH, PUBLICATION AND ETHICS

Our Ref: CHRPE/AP/345/25 10th March, 2025

Mr. Henry Berye Afoakwah
Faculty of Environmental Science
Akenten Appiah-Menka University of Skills
Training and Entrepreneurial Development

Dear Sir,

LETTER OF APPROVAL

Protocol Title: *"Accessing Healthcare Services among the Deaf Community in the Ashanti Region of Ghana."*

Proposed Site: *Ashanti School for the Deaf Jamasi, Agona Government Hospital, Wiamoasi SDA Hospital and Adwafun SDA Deaf Church.*

Sponsor: *Self-Sponsored.*

Students: Mr. Henry Berye Afoakwah.

Supervisor: Dr. Denis Dekaprewi Yar

Your submission to the Committee on Human Research, Publications, and Ethics on the above named protocol refer.

The Committee reviewed the following documents:

- A confirmation letter of 3rd February, 2025 from the Adwafun SDA Deaf Church (study site) indicating approval for the conduct of the study in the church.
- A confirmation letter of 25th February, 2025 from the Ghana Health Service, (study site) indicating approval for the conduct of the study in the region.
- A confirmation letter of 28th February, 2025 from the Ghana Education Service, Agona (study site) indicating approval for the conduct of the study in the region.
- A Completed CHRPE Application Form
- Participant Information Leaflet and Consent Form.
- Research Protocol.
- Questionnaire.

The Committee has considered the ethical merit of your submission and approves the protocol. The approval is for one year, renewable after that, from **10th March 2025 to 9th March 2026.** The Committee may, however, suspend or withdraw ethical approval at any time if your study is found to contravene the approved protocol.

Data gathered for the study should be used for the approved purposes only. Permission should be sought from the Committee if any amendment to the protocol is made, other than subsection, is made of your research data.

The Committee should be notified of the actual start date of the project and would expect a report on your study, annually or at the close of the project, whichever one comes first. It should also be informed of any publication arising from the study.

Thank you for your application.

Yours faithfully,

Rev. Prof. Isaac Appiah-Yeboa
Honorary Secretary
FOR: CHAIRMAN

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APPENDIX II

QUESTIONNAIRES

Introduction to the Questionnaire

Dear Participant,

I am a Master of Public Health (MPH) student at the Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED). I am conducting research as part of my academic requirements, with the topic: *"Accessing Healthcare Services among the Deaf Community in the Sekyere South District of Ghana."*

My aim is to understand the experiences, challenges, and needs of the Deaf community in accessing healthcare services in the region. The findings will help provide insights to improve healthcare accessibility for the Deaf community.

Your participation in this questionnaire is highly valuable, and your responses will be treated with the utmost confidentiality. The information gathered will solely be used for academic purposes and presented anonymously.

Thank you for taking the time to assist in this important research.

Questionnaire Structure

This questionnaire is divided into four sections:

- Section A: Socio- Demographics –To collect general background information about respondents.

- Section B: Communication Barriers – To assess the challenges faced by the deaf community in communicating with healthcare providers.
- Section C: Healthcare Experiences – To examine the experiences of the deaf community in accessing healthcare services.
- Section D: Health Facility Practices – To evaluate the existing measures and practices in health facilities for accommodating the needs of the deaf community.

The responses will help identify gaps and improve healthcare accessibility for the deaf population.

Instructions for Completing the Questionnaire

Thank you for participating in this study. Your responses are valuable in understanding the challenges faced by the deaf community in accessing healthcare services and evaluating the practices in health facilities.

- Sections A, B & C should be answered only by members of the deaf community to provide insights into their experiences and communication barriers in healthcare settings.
- Section D should be answered only by healthcare providers to assess existing measures and practices in accommodating the needs of deaf patients.

Please read each question carefully and select the most appropriate response. Your answers will remain confidential and used solely for research purposes.

Section A:

Socio-Demographics (Circle your Answer on letters A- E) (Questions 1-25)

1. What is your age?

1. 13–17
2. 18-–24
3. 25–35
4. 35 – 44
5. 45 - Above

2. What is your gender?

1. Male
2. Female

3. What is your primary mode of communication?

1. Sign language
2. Lip reading
3. Writing
4. Other

4. What is your employment status?

1. Employed
2. Unemployed
3. Student
4. Retired

5. What type of healthcare facility do you mostly use?

1. Public hospital

2. Private hospital
3. Community clinic
4. Herbal/Alternative medicine

Section B:

Communication Barriers

6. Do healthcare providers know sign language?

1. Yes
2. No
3. Some do

7. Have you ever been denied healthcare due to communication barriers?

1. Yes
2. No

8. How do you usually communicate with healthcare providers?

1. Sign language interpreter
2. Writing
3. Lip reading
4. Family assistance

9. Do you feel that healthcare providers make an effort to communicate with you?

1. Always
2. Sometimes
3. Rarely
4. Never

10. Have you ever avoided seeking medical care due to communication difficulties?

1. Yes
2. No

11. Have you experienced misdiagnosis due to communication challenges?

1. Yes
2. No

12. Do healthcare facilities provide interpreters or other communication support?

1. Yes
2. No
3. Sometimes

13. How comfortable are you communicating with healthcare providers?

1. Very comfortable
2. Somewhat comfortable
3. Neutral
4. Uncomfortable
5. Very uncomfortable)

14. What method of communication would improve your healthcare experience?

1. More interpreters
2. Digital communication aids
3. Written materials
4. Training for healthcare staff

15. Have you received any health education materials in an accessible format?

1. Yes
2. No

Section C:

Healthcare Experiences

16. How often do you visit a healthcare facility?

1. Regularly
2. Occasionally
3. Rarely
4. Never

17. How long do you usually wait to receive medical attention?

1. Less than 30 min
2. 30 min–1 hour
3. 1–2 hours
4. More than 2 hours

18. Have you ever felt discriminated against in a healthcare setting due to being deaf?

1. Yes
2. No

19. Were you provided with an interpreter during your last visit to a healthcare facility?

1. Yes
2. No

20. Do you feel that your health concerns are understood by healthcare providers?

1. Always
2. Sometimes
3. Rarely
4. Never

21. How satisfied are you with the quality of healthcare you receive?

1. Very satisfied
2. Satisfied
3. Neutral
4. Dissatisfied
5. Very dissatisfied

22. Have you ever been prescribed the wrong treatment due to communication difficulties?

1. Yes
2. No

23. Do you receive follow-up care after treatment?

1. Yes
2. No
3. Sometimes

24. Do you feel safe and respected when accessing healthcare services?

1. Always
2. Sometimes
3. Rarely

4. Never

25. What improvements would you suggest to enhance healthcare services for the deaf community? (If Any)

……

……

Section D:

Health Facility Practices (Healthcare providers only) (Questions 26-40)

Evaluating existing measures and practices in health facilities for accommodating the needs of the deaf community:

Socio-Demographic:

26. What is your age group?

1. 18–25
2. 26–35
3. 36–45
4. 46–55
5. 56 – Above

27. What is your highest level of education?

1. Diploma
2. Bachelor's degree
3. Master's degree
4. Doctorate
5. Others (Specify) ……

28. What is your current role in the healthcare facility?

1. Doctor
2. Nurse
3. Pharmacist
4. Administrative staff
5. Others ……

29. How many years of experience do you have in the healthcare field?

1. Less than 1 year
2. 1–5 years
3. 6–10 years
4. More than 10 years

30. Have you received any formal training on communicating with deaf patients?

1. Yes
2. No
3. Not sure

31. Do healthcare facilities in your area provide sign language interpreters?.

1. Yes
2. No
3. Sometimes

31. Are healthcare providers trained to communicate with deaf patients?

1. Yes
2. No
3. Not sure

32. Have you ever seen visual aids (e.g., posters, digital screens) used for communication in healthcare facilities?

    1. Yes

    2. No

33. Do healthcare facilities provide written materials or digital tools to assist with communication?

1. Yes

2. No

3. Sometimes

34. Are healthcare staff willing to use alternative communication methods (e.g., writing, gestures)?

1. Always
2. Sometimes
3. Rarely
4. Never

35. Are there policies in place to ensure accessibility for deaf patients in healthcare facilities?

1. Yes
2. No
3. Not sure

36. How easy is it to schedule a healthcare appointment as a deaf patient?

1. Very easy
2. Easy

3. Neutral
4. Difficult
5. Very difficult

37. Have you ever had difficulty understanding medical prescriptions or discharge instructions due to a lack of communication support?

1. Yes
2. No

38. Do you think healthcare facilities prioritize the needs of deaf patients?

1. Yes
2. No
3. Sometimes

39. What improvements would you suggest for making healthcare facilities more accessible for the deaf community? (If Any)

……

……

THANK YOU